

**COPING WITH PHYSICAL REHABILITATION:
THE FACTORS WHICH
INFLUENCE A POSITIVE OUTCOME AMONG
OLDER ADULTS**

BY

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AUGUST 1998

**THESIS SUBMITTED TO THE UNIVERSITY OF EDINBURGH IN PART FULFILMENT OF
THE DEGREE OF DOCTORATE OF CLINICAL PSYCHOLOGY**



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ACKNOWLEDGEMENTS

I am indebted to Dr Elspeth Stirling, my Clinical Supervisor for the duration of this study. She gave of her advice, assistance, and time most freely and generously throughout the year. I would also like to thank my Academic Supervisors, Katherine Cheshire and Frank Charlton who advised on the methodology of the study, gave comments and advice on earlier drafts, and both of whom have been there to support and guide me throughout my training. I would also like to thank Dryden Badenoch and John Bogue for their advise and comments on the analysis of the data.

I am, of course, obligated to all the subjects who agreed to participate, and were so willing to help in this study. They gave of their time with enthusiasm in the knowledge that there would be no immediate benefit for themselves.

I would like to thank the Charge Nurses, Gillian Fenton and Brian Haliday, and staff of the Day Hospitals for their help in the recruitment of subjects. To all staff who completed an assessment form on participant, thank-you.

Finally I am eternally grateful to my husband, Ken, for his unstinting patience and support throughout my Clinical Training, but especially during these last few months. My mother's unselfish generosity and enthusiasm throughout my years of education has always been at her personal sacrifice words can not thank her enough.

DECLARATION

“I certify that this is a true and accurate account of the work carried out. This thesis has been composed by myself and the work contained herein is my own.”

Signed .

Clare Quayle Neilson

ABSTRACT

COPING WITH PHYSICAL REHABILITATION: THE FACTORS, WHICH INFLUENCE A POSITIVE OUTCOME AMONG OLDER ADULTS

This study examined the relationship between coping style and the rehabilitation outcome of older adults. Random participant selection was used, and all patients referred to the Day Hospitals over a four-month period were approached to take part. Participants were excluded from the study on the grounds of cognitive impairment, as assessed by the Mini-Mental State Examination (Folstein et al 1975). Conditional upon informed consent being given, 28-subjects were interviewed on 2 occasions; i) on their second attendance at the Day Hospital and ii) 4 weeks later. On each occasion participants were interviewed using a structured interview, the Hospital Anxiety and Depression Scale (Zigmond and Snaith 1983), The COPE (Carver et al 1989), and the Recovery Locus of Control Scale (Partridge & Johnston 1989). The aim of the study was to examine which coping styles are associated with lower levels of anxiety and depression, and the effect of time on coping. Consideration is also given to the frustration experienced by patients while on the waiting list for rehabilitation. The results include a combination of quantitative and qualitative analysis, which are discussed in relation to coping style and its relationship with individuals' levels of anxiety and depression. The relationship between coping style and the progress made by patients in rehabilitation is reported.

INTRODUCTION TO THE STUDY

1.1 GENERAL OVERVIEW

It is now an established fact that older people are living longer, and furthermore, the proportion of the population in the age group over 65 is growing rapidly. Woods & Britton (1985) reported the actual and projected figures for the elderly population of Britain (England & Wales) between 1960 and 2001. Woods & Britton inform us that the proportion of over 65 years old in the UK is estimated to be between 15-20 per cent of the entire population by the end of this century, compared with approximately 5 per cent at the beginning of the century.

Given that people are living longer it is likely that they will require periods of medical treatment and invariably this necessitates periods of hospitalisation. In this context we may describe people as falling into 3 categories; the first are those who may or may not have medical problems but who can manage adequately at home. The second group are those who are finding life in their own home increasingly difficult and they are unable to manage sufficiently themselves, despite trying extremely hard to do so. People in this group require a level of assistance and care; this may be provided by a family member, or paid carers. It is often during a hospital stay that people face the decision about not returning to their own home. The third group consists of those older people whose needs require a higher level of assistance including specialist help. The mental or medical health of these people is often the reason that they require care. These people may be suffering from either a progressive deterioration of their cognitive functioning or they may suffer from a terminal medical condition, which results in their being hospitalised or institutionalised in residential or nursing home care.

The reason for this study was primarily due to a problem identified by the Medical Director of the local Health Service Trust. In a memo to the Psychology Department he wrote, "What effect does waiting have on the 'bed-blockers' themselves?". A copy of the memo is given in Appendix 1. He had been approached by several local General Practitioners, who were expressing their concern about the effects of waiting in hospital for appropriate discharge or transfer to other services has upon their patients. They were specifically expressing concern due to the number of their patients, some of whom, when hospitalised for long periods of time appear to withdraw into themselves and psychologically/ mentally decline. The ultimate consequences of waiting and uncertainty were recognised as being potentially distressing and harmful for elderly patients. For example, patients may decline and consequently require long-term care as a result of their experience. As a consequence of this observation the issue was raised with the Clinical Psychology Department and a request was made to investigate this problem further.

In view of current health care practice it is perhaps helpful to remember the influence of the move to a Primary Care based Health Service when considering why some patients are hospitalised for longer than others are. The current ethos is for minimal lengths of stay, and therefore it tends to be those patients who are waiting for rehabilitation, nursing home placement and long-term continuing care who are in acute hospital beds for prolonged periods. When designing the study the envisaged scenario, as outlined by the Medical Director and G.Ps, was that these elderly patients were experiencing prolonged stays in acute hospital beds while awaiting the availability of suitable specialist services to help rehabilitate them or transfer them back to the community.

It was decided to investigate how these patients deal with waiting, and the extent to which their future progress in rehabilitation is influenced, either positively or adversely, by their style of coping and the length of time spent waiting. It is likely

that patients will have high expectations of the progress to be made in rehabilitation. Along with the individual's coping style, the length of time spent waiting, their social support and social participation, and their level of anxiety and depression are all likely to have an impact on the progress the individual makes during rehabilitation.

It was initially intended that this study would investigate the psychological impact the experience of waiting for specialist services while in acute medical settings has upon the wellbeing of patients. However, it was discovered that patients waiting for rehabilitation services were discharged from hospital at the earliest possible opportunity, and it is from their own home that they await allocation to a rehabilitation service. The majority of patients who were experiencing prolonged waiting, or "bed-blocking" were awaiting long-term continuing care placements, and were significantly cognitively impaired. This proved to be the first finding of the study, that is to say, it was evident that the managers, Medical Director, and GPs had a different perception of the problem. While the managers had perceived a problem to be associated with patients waiting for rehabilitation services, the ward staff in the acute hospital reported that it was the most severely impaired and dementing patients who were actually found to be waiting for placement in specialist care settings. Discussions with the nursing and therapy staff in the rehabilitation service suggested that it would be more beneficial to study patients within that service. Staff were of the opinion that patients' coping style is an important factor in rehabilitation, and psychological distress impedes progress. It was then decided to investigate the interplay between these two variables at the progress made by patients during rehabilitation. Due to the fact that we had discovered that patients wait for rehabilitation services in their own home, it was decided to approach patients as they began the rehabilitation process rather than during the waiting period. They would then be asked retrospectively about their waiting experiences which occurred while they were at home.

In the introduction which follows, the focus will be on specific areas of the literature. Consideration will be given to the following areas of the literature: Clinical Psychology and its role in the care of older adults, the ageing process, with specific reference to the concept of successful ageing. The literature on coping theory and coping with health problems, recovery, and waiting will also be discussed in the sections of the introduction which follow.

The role of Clinical Psychology as part of the general health care provision offered to older adults will be discussed. In addition, the reasons for the need for the provision of such a service will be reviewed. A review of the literature regarding the ageing process will also be given. This will be followed by a review and discussion of the literature on coping, and specifically coping as displayed by older adults. Consideration will also be given to the literature on the psychological factors associated with recovery following surgery/ trauma. The final section of the introduction will discuss the issue of waiting. It will also discuss the current literature on waiting for NHS services, “bed-blocking” and the consequences for the patients.

SUMMARY

It is the aim of this study to investigate the role of psychological distress; anxiety and depression, and the coping styles, which promote positive progress in physical rehabilitation centres. By means of two interviews with subjects, four weeks apart, the investigation of those coping strategies, which promote positive rehabilitation outcomes and minimise psychological distress between and within subjects over time will be identified.

1.2 CLINICAL PSYCHOLOGY FOR OLDER ADULTS

“The challenges and opportunities for the application of psychology to the needs of older people have increased dramatically in the second half of the 20th century”

from Britton & Woods page 1 (1996)

In this section it is proposed to examine the role of Clinical Psychology as part of the general health care provision of older adults. The client group will be defined, and the development of psychological interventions for older people will also be discussed. A brief outline of Clinical Psychology service provision is also included.

1.2.1 WHO IS THE CLIENT GROUP?

There are invariably problems when trying to define ‘the elderly’. A commonly debated question is “Who are they?” and “When do you become old?” or “At what age does old age begin?”. The answers to these questions are clearly culturally based and depend to a large extent on where the person lives, for example what is considered to be old age in Ethiopia and in Britain would be two different concepts. In undeveloped countries a 40-year-old might be thought to be old, but in developed countries life expectancy might be around 80 years. However retirement age is generally accepted as being the lower end of the ‘old age continuum’, although even that yard-stick is proving to be increasingly difficult to use with people taking early retirement and retiring at 50-55 years of age. The conventional retirement age of 65 years is generally accepted to be the cut-off point for a variety of purposes; including service delivery, retirement, psychological practice and research. Exceptions do exist however.

The prevailing view of retirement is that since humans spend most of their adult life working, their identity and sense of self is constructed around work. Similarly, people view others in relation to the inherent value associated with their occupation. Hence retirement can be seen as triggering the loss of role and simultaneous loss of

identity of self which many people report leads to stress and anxiety (Crawford 1972).

1.2.2 WHAT HAS CLINICAL PSYCHOLOGY TO OFFER THIS CLIENT GROUP?

It is often said of this group that they form a group in society of which the therapist has not yet been a member, hence we can be left feeling powerless to help them. Alternatively, others subscribe to the view that “at that age” they do not have time to change their style of thinking in order to effect a positive outcome. In the past the idea of working psychotherapeutically with older adults was traditionally a rather pessimistic topic. Many believe this pessimism is largely attributable to Freud (1905/1953) and his psychoanalytic assertion that older people’s characters were too rigid to permit change. Knight (1996) writes that, “therapists were frequently accused of being prejudiced against or afraid of elderly people”. Whether this belief was due to ignorance or apprehension that they too one day would be elderly, is unclear but this prejudice has often been the cause of older people being denied services. However, Knight (1986a; 1986b.) suggests that although traditionally it has been claimed that the denial of services to the elderly was due to therapists’ negative attitudes, he considers this role to have been exaggerated. Knight suggests that the role of administrative policy is a crucial factor.

1.2.3 THE NEED FOR SPECIALIST SERVICES

The traditional approach to older adults who had mental health problems would be to treat them according to a medical model and admit them to either nursing care or a residential setting. It was generally assumed that this served to alleviate the stress suffered by their carers/ relatives, which has since been contradicted.

When working in this field, one may be asked what makes working with older adults any different from clinical psychology with younger adults? Clinical psychologists working in this area are aware of the exact nature of these differences e.g. the

psychological needs of older people, the pace of therapy, and the need for multi-agency involvement. Without question assessment continues to be a major role, for as in all specialisms this is a key aspect. As we are all aware it is the psychologist's thorough assessment of a problem that leads to the formation of an accurate formulation, and effective intervention producing effective psychological help. This does not differ between specialisms, but psychologists working with older people have an understanding of the complexity of the needs of the client group, and it is often the case that they present with multiple needs.

However, until the late 1970s there was little interest, or involvement in specialist services for the elderly, let alone tailored interventions for their psychological needs. Woods & Britton (1977) were among the first to show an interest in developing interventions and applying them to this client group. Publication of the works of Hanley & Hodge (1984), and Woods & Britton (1985) were the first specialist psychological interventions for use with older adults.

There is now a wealth of literature reviewing the psychological needs of older people (Britton & Woods 1996; Dick et al 1996; Gardener 1996; Knight 1996; Thompson et al 1987; Wilkinson 1997). It is generally accepted that although older adults can suffer from many of the clinical problems that younger adults experience, it is desirable they be treated within a service that is designed specifically with their needs in mind. Such a service can offer treatments which are tailored to the needs of older people, a positive attitude exists towards both the client group and the therapeutic interventions provided. A specialist psychology service can offer a great deal when tackling the institutionalised practices of hospitals and suggesting alternatives.

1.2.4 MODELS OF SERVICE PROVISION

Traditionally the patterns of service delivery reflect the socio-economic status of the population. During the past 30 - 40 years a clear transformation of the economic and social structure of the UK has been evident; the transition from an industrial to a

post-industrial society. Even more recently, within the last decade people's expectations regarding stable employment, their entitlement to economic support in later life, and even the provision of health care and residential care have been significantly altered.

Today there are at least three models of service provision. One is the primary care model, where patients are seen in a primary health care setting usually their G.P.'s surgery (Stirling 1996). Another is a secondary more traditional care service where the Clinical Psychologist has close links with the rehabilitation services of hospitals. In this service referrals are predominantly associated with the specific needs of those patients who have suffered from some form of medical emergency which has resulted in a loss of physical/ cognitive functioning e.g. stroke. The third type of service is a tertiary mental health service, which operates similarly to the traditional adult mental health service. In this service referrals are generally received from another specialist, either psychiatry or geriatricians, so patients tend to be seen by a psychiatrist, or geriatrician first who then refers them on to Clinical Psychology. Historically secondary and tertiary service delivery has been provided, but there is growing evidence of the value and importance of primary care input.

In a previous study (Neilson 1997) demonstrated that older adults are rarely referred to traditional secondary clinical psychology services by their own General Practitioners. The reason for this is unclear; however, it is possible to speculate that this is associated with the "understandability phenomena" (Blanchard 1996; 1992). There is a view that it is perfectly understandable for old people to be depressed. As a consequence it is possible that G.Ps may 'miss' the presentation of depression in some patients (McDonald 1986).

Given that more positive attitudes have been adopted and now prevail towards older people it is interesting to compare service delivery across Clinical Psychology services, which specialise in working with older adults. It appears that within primary care there appears to be heightened awareness of the existence and nature of

the psychological difficulties experienced by older people. The question remains as to whether older people with emotional/ psychological difficulties are identified in rehabilitation services. Are such difficulties identified or do they tend to be overlooked?

It has been stated that psychology, and Clinical Psychology in particular, has much to offer the older adult. The literature acknowledges that both specialist Clinical Psychology services and specialist psychological approaches are merited when working with the elderly. Many publications are now available in support of this contention (Britton & Woods 1996; Knight 1996; Wilkinson 1997). Clinical skills and therapeutic interventions have been researched. These provide the practitioner with both the theoretical framework and clinical interventions developed for older people. It is important to highlight the many varied ways in which Clinical Psychology can be, and is, of assistance to this client group. Psychologists can work on a consultancy basis offering advice on specific issues, or they can work as part of a multidisciplinary team, they can also see clients on a one-to-one outpatient basis. Psychologists often work with the families and carers of people, who suffer from dementia, in addition, a service is often offered to residential care establishments. There is little to be gained by identifying an area of need, or clinical population if nothing can be done to alleviate the suffering. However, this does not apply in the case with older adults. If it is found that rehabilitation patients are significantly anxious or depressed, or failing to cope successfully Clinical Psychologists have the knowledge and skills to develop an intervention package, which could be beneficial to older people.

There are 2 aims to this study: the first is to identify the types of psychological difficulties experienced by older people who are undergoing physical rehabilitation. The second is to demonstrate the advantage of Clinical Psychology involvement where a need is present.

Clinical Psychologists, by definition, become involved in patient care when the individual is experiencing difficulty adjusting to their situation. However, it is also useful to consider what it is that makes the ageing process more successful for some than others. It is proposed to address the concept of the ageing process, and successful ageing in the following discussion.

1.3 THE AGEING PROCESS

In this section the topic of successful ageing will be discussed, and the literature pertaining to self-evaluations of health and the role of social support in the lives of older people will be reviewed. This topic is considered to be of relevance to the current study because it is necessary to know as much as possible about the ageing process, before associations can be made between physical infirmity and successful, or positive ageing.

1.3.1 A PSYCHOSOCIAL PERSPECTIVE

Throughout this century a significant increase in life expectancy has developed, and in addition, there has been a decrease in mortality rates at all ages. In a longer-term perspective, it can be argued that over the past 20 years, the ten year period between the age of 65 and 75 has become a time of life that the majority of older adults can enjoy in good health, both in mind and in body. By the time many older adults reach retirement age, they have around a third of a lifetime yet to live. As life expectancy has increased it has also become increasingly apparent for the need to maintain a quality of life into these later years, after all what is to be gained from living longer if minimal enjoyment is to be experienced in these additional years? It is natural to want to spend one's remaining years maintaining as good a quality of life as possible. This however gives rise to an important question: "How can older people achieve a truly successful ageing?" (Solomon & Peterson 1994)

Research has been conducted into this area which has focused on quality as well as quantity, and the aspects of productive, healthy, successful, and effective ageing have generated a great deal of interest. Ritchie (1997) reported on the exceptional case of Jeanne Calment, who died in Arles in France of 'natural causes' aged 122 years of age. Jeanne was generally considered to be the oldest living person. She continued to live independently until aged 118 years of age. When she died she had made a lasting contribution to our perception of not just old age, but, very old age.:

she promoted a positive image of ageing to all of us. Ritchie (1995) reported the results of the neuropsychometric assessments performed by Jeanne. She was found to be performing in the range of most 80 years olds. It can be argued that Jeanne can be considered a genuine example of “*eugeria*” – the description given by Aristotle for ‘successful ageing’.

The older population is a heterogeneous group and it is important to remember this fact, and treat them as such. ^(Zuss) It is also worthwhile exploring the different ways in which they deal with experiences. This information is necessary before we are in a position to intervene when things go wrong; we are required to have information regarding the successes, and the things that have gone well. This section is included in the introduction in order to explain the process involved in cases of positive or successful ageing, this information is important when discussing scenarios of unsuccessful ageing.

1.3.2 SUCCESSFUL AGEING

There is no universally agreed upon standard by which to measure the concept of successful ageing, and indeed it is unlikely that there will ever be a universal consensus. Several different criteria may be used as the standard by which to define successful ageing. Rakowski, Pearlman and Murphy (1995) suggest that these may include a combination of the following;

- a) avoiding premature mortality
- b) maintaining a level of functional health
- c) improving functional health compared to one's previous levels
- d) remaining independent despite the onset of ill health or functional loss
- e) remaining productive and contributing to society either through part-time work or voluntary participation in organisations
- f) retaining control of financial and material resources for as long as possible

- g) retaining an active interest in the world through intellectual, cognitive, and creative skills
- h) adjusting psychologically to the losses that can accompany later adulthood
- i) maintaining a positive broad based outlook upon issues such as life satisfaction, self-concept, and future orientation.

In other words, when expressed concisely, maintaining a quality of life depends upon the individual's ability to cope with the physical and emotional stresses of ageing, maintaining some control over one's life, sustaining social ties with both family and friends, and regarding one's life as meaningful.

The term successful ageing conjures up a certain image, of an older person who is adapting both psychologically and physically to their increasing years. However, one ponders on the image created by the term unsuccessful ageing, if a person is not described as ageing successfully does that automatically mean that they are doing it unsuccessfully? Do we suddenly change our description of people, for example, would someone previously described as ageing successfully suddenly be classified as being unsuccessful if their health status changed or they fell below a criterion. Such classifications are frequently used, and they have great impact upon the individual's self-concept, and the attitudes of professionals. Many older people have managed well in life, and are only seen by health care professionals for specific reasons in later life. It is important to remember that these individuals may well have been termed to be ageing successfully until they are suddenly caught-up in the system and they themselves will have to deal with the change within their concept of self. Solomon & Peterson (1994) comment that if an older person lacks optimism and humour, and finds it difficult to be flexible and adaptable, he/she may be at risk of experiencing psychological or emotional problems.

1.3.3 OLDER PEOPLE'S SELF-RATING OF THEIR HEALTH

The potential relationships between personal state-of-mind and effects on physical health have been discussed and researched for many years (Cockerham, Sharp & Wilcox 1983; Idler & Kasl 1991; Kaplan, Barell & Lusky 1988; Kivinen, Halonen, Eronen & Nissinen 1998; LaRue, Bank, Jarvik & Hetland 1979; Wolinsky & Johnson 1992).

In the research on ageing, one of the intriguing questions asked has been whether a person's subjective assessment of their health can in some way influence the individual's subsequent health state, for either the better, or worse. Taking this thought to its logical conclusion, it is possible to postulate that if a person can influence their health in such a way does this apply even to the extent of mortality? (Idler & Kasl 1991; Wolinsky & Johnson 1992). Intuitively this hypothesis would be that positive or favourable self-assessments of health state would be reflected in a longevity advantage and that mortality rates would increase as subjective ratings became increasingly negative. This hypothesis has to a large extent been confirmed by several studies. Idler & Kasl (1991) contended that the relationship between perceived health and mortality was possibly due to either of three explanations. They argued that the relationship was the product of methodological limitations of previous studies, which had produced spurious findings. Alternatively, they contended that other psychosocial factors were actually involved, and finally they suggest that perceived health does actually have a relationship and an effect upon mortality. Idler & Kasl (1991) conclude that this final explanation appeared the most plausible.

1.3.4 SELF EVALUATION AND RATINGS OF GENERAL HEALTH STATUS

When studying subjective health issues and mortality, investigators have tended to use simple questions amenable to survey designed studies. In fact most researchers have used a single question asked at a baseline initial interview to predict subsequent health status. A commonly asked question is "How would you rate your health at the

present time? And five response categories can be offered “excellent, good, fair, poor, or, bad”. This was the measure used by Idler & Kasl (1991). There is no comparison with other people, or age peers implied by this question. An alternative way in which a similar question is asked the aim of which is to obtain a subjective assessment of health relative to age peers, or to chronological age, e.g. “For your age would you say in general your health is excellent, very good, good, fair, poor, or bad?” “Compared to other people your own age, would you say your general health is excellent, good, fair, poor, or very poor?”.

Research suggests that individuals are accurate when assessing their personal health status, and people who rate themselves as being of poor or fair health have an increased risk of mortality (Cockerham, Sharp & Wilcox 1983; Idler & Kasl 1991; Wolinsky & Johnston 1992). Such findings appear to be consistent. This is a significant conclusion for several reasons, primarily because subjective health has been generally assessed by a single question with a response set. The fact that such a basic assessment shows a repeated relationship to mortality suggests that it is demonstrating that a reliable relationship exists. Research by Idler & Kasl (1991) and Wolinsky & Johnston (1992) demonstrates that this relationship between subjective ratings of health and mortality applies to both men and women. In addition, the relationship between these two variables has been found to apply over periods of up to 12 years. The research has demonstrated that these predictive relationships have been found despite the implementation of statistical procedures that correct for other variables, such as, age, gender, medical conditions, social support, and physical health which would be highly likely to effect mortality.

The findings of these studies would appear to have significant importance. They have demonstrated that a predictive relationship between subjective health ratings and mortality exists.

1.3.5 SOCIAL SUPPORT AND SOCIAL PARTICIPATION

Wenger, Davies, Shahtahmasebi & Scott (1996) highlight the distinction between social isolation and loneliness. They explain that,

“social isolation refers to the objective state of having minimal contact with other people; while loneliness refers to the subjective state of negative feelings associated with perceived isolation” (Wenger et al 1996 page 333).

The relationship between social support, health status, mortality, physical illness and recovery, and the increased risk of being institutionalised has been demonstrated. Over the last decade a large amount of research has emerged which demonstrates the positive effects of social support. The research evidence suggests that being part of an integrated network of family and friends reduce the risk of morbidity and mortality and aids recovery. (Arling 1987; Cohen & Wills 1985; Colantonio, Kasl, Ostfield & Berkman 1993; Mendes-de-Leon, Kasl & Jacobs 1994; Kulik & Mahler 1989; Oxman, Freeman, & Manheimer 1995; Schulz & Decker 1985; Welin, Tibblin, Svardsudd, Tibblin, AnderPeciva, Larsson & Wilhelmse 1985; Wenger et al 1996; Wenger 1997).

Mortality has been significantly related to many factors. These include activities out with the home, social activities, (the higher the activity the lower the mortality), and the number of people living in a household, (the more people within the house the lower the mortality). These results are found even when age, health status and coronary heart disease risk factors are controlled for (Welin et al 1985). These results indicate that for example, unmarried, socially isolated people are more likely to become ill, or die than those individuals who are socially integrated (e.g. are married, have an active role to play as a part of an extended family, friends, and organisations). Wenger (1997) studied five different types of social networks which she has found correlate with outcome measures such as, health, morale, social isolation, loneliness, and depression.

Although there is general acceptance that social support influences health and mortality, there is continuing debate about how social support prevents ill health and/

or enhances health (Antonucci 1985; Arling 1987; Cobb 1976; Cohen & Wills 1985; Schulz & Decker 1985; Wenger et al 1996). There have been two divergent explanations offered. The “main effects” hypothesis states that social support has an independent and positive effect upon a person’s well-being, even when other potential explanatory variables are included in an analysis (Antonucci & Akiyama 1987). This means that the presence or absence of social support influences health to a comparable degree, for either better or worse, and this effect applies across a wide variety of personality characteristics. It is possible that this benefit could result for the transmission of health beliefs and values in the social network, or via the active encouragement of health-promoting behaviours (Umberson 1987).

The second view or the “buffering effect” hypothesis holds that social support is of specific importance in times of stress rather than in general (Cobb 1976; Arling 1987; Cohen & Wills 1985). They contend that social support is of most beneficial effect in stressful situations, and in times of stress rather than in general.

Cobb (1976) discussed the role of social support as a moderator of life stress, i.e. the way in which social support buffers against the adverse and negative consequences of upheaval, change and crisis. Cobb (1976) defines social support as being information that fits in at least one of three areas. This information enables the individual to perceive and believe that s/he is;

- a) cared for, loved and regarded with affection,
- b) esteemed and valued
- c) belongs to and is part of a social network, is part of social interactions and shares the responsibility for these interactions.

The role of social support and the social support network is especially important in maintaining and aiding recovery among the elderly population, as an inherent aspect of ageing is associated with an increase in health related problems. While people are younger, or are at least healthy, the need for and benefits gained from social support are less apparent. However, with age comes a restriction in maintaining social

relationships with the death of family, friends and contemporaries, and restricted mobility. It is important to heighten public awareness of the need older people have for support from the extended family and neighbours, because the individual's network is diminishing at the time of greatest need. However, Arling (1987) has shown that it is the intimate core support (from either family or friends) that serves to be most beneficial in times of coping with serious health problems, rather than a wider, less intimate, network.

Wenger et al (1996) have developed a model which identifies critical factors which lead to isolation and loneliness in the elderly. These include the composition of the household (whether they live alone, with spouse, or with someone younger, or older); morale and their type of social network.

1.3.6 SUMMARY

In an attempt to understand how difficulties arise in life it is often helpful to consider situations in which no difficulties are present, and compare the two. In this study the issues of successful ageing, self-evaluations of health, social support and support networks are of relevance because the participants of this study are attending a Day Hospital for rehabilitation. These issues are therefore pertinent. The way in which the individual views his/her health is likely to influence their progress, as are factors such as their living arrangements, and the amount of social support they receive.

The accuracy of individuals' self-evaluations of their health status are known (Cockerham et al 1983; Idler & Kasl 1991; Kaplan et al 1988; Kivinen et al 1998; LaRue et al 1979; Wolinsky & Johnson 1992). Research has proved the importance of social support to older people, whether from family or friends (Arling 1987; Cobb 1976; Cohen & Wills 1985; Schulz & Decker 1985; Wenger et al 1996; Wenger 1997). The literature suggests that the individual's ability to cope is dependent upon their appraisal or interpretation of their situation, this applies with reference to the ageing process. In the following section the subject of coping will be investigated in detail.

1.4 COPING

1.4.1. THE EFFECTS OF THE STRESSOR ON COPING

Coping is generally seen, as a response to stress which is independent of the individual (Ray et al 1982).

Life is not static, it is not predictable, but rather it is in a permanent state of flux, and therefore it is impossible to make any global assertions about our abilities to cope at all times. At best life is in quasi-equilibrium, where challenges are emerging almost constantly, during the course of a day within each hour some form of challenge has emerged. Such challenges are often met and dealt with unobtrusively and as a matter of routine.

The way in which stress is conceptualised has a major impact in the manner in which coping is defined. There are two distinct theoretical camps offering opposing conceptual notions of stress, and consequently there are two corresponding themes evident in the literature. In addition to this division there are also, by implication two opposing ways of conceptualising the coping process.

The main proponent of the physiological view is Hans Selye (1976). His classic formulation of the concept of stress is one involving physiologic and endocrinologic processes. Selye holds that stress is a pathogen, a noxious toxic agent, or pathogenic-like event that triggers a series of reactions. These reactions occur in areas within the brain, including the hypothalamus and the pituitary gland. Finally the adrenal cortex is where the hallmark of the stress response is released in the form of corticosteroids. These hormones have a variety of immediate and long-term effects, which have to be dealt with in addition to the consequences of the specific effects of the instigating pathogen.

At the other end of the spectrum from Selye, is the view purported by Lazarus, who regards stress as the consequence of an event perceived to be threatening: to the

threatening: to the point of personal endangerment (personal threat or harm), or outwith the coping response capacity of the individual. Then when a potential threat emerges the individual makes a series of appraisals, for example, consideration may be given to the strength of the stressor, or to the person's ability and capacity to resist it, or to the likely enormity of potential damage it may cause etc. Lazarus emphasises the role of behavioural, cognitive, and emotional consequences, in addition to the hormonal consequences. *"In this context coping is any action or belief that modifies some aspect of the appraisal and evaluation process."* (Singer 1984 page 2303).

It must be noted that the two theorists differ over their interpretation of where the stressor is located. In Selye's view he puts it outside the person, he conceptualises of it as an invader against which the person must take action. Whereas Lazarus argues that it is a mental concept/construct. That is to say *"...coping is defined as ongoing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing"* (Lazarus 1993 page 237) or *"Nothing is stressful except as we deem it so,...conversely nothing is harmless, if we believe it to be a threat."* (Singer 1984 page 2303). Therefore in those situations where both Selye and Lazarus would agree stress to be present, Selye would consider a physiologic state to assess the usefulness of a coping mechanism, Lazarus would assess psychological well-being for the same purpose.

One should be aware that both the theories of Selye, and those of Lazarus, are much more complex, and in-depth than can be gone into here. Suffice to note that full justice has not been paid to either in such short space.

Researchers have adopted differing perspectives on coping. One view is of coping as a generic concept and referring then to coping style, the other view is of coping as a process. Inevitably when coping is considered to be a process, it changes over time, and also responds to the situational demands and contexts in which it occurs. Lazarus' direction has been to pursue the notion of coping as a process, and in doing so he and his colleagues have developed measurement instruments to this end. In

addition questionnaires have been developed, to measure and study coping as a process and its implications and consequences for adaptation (Scheier et al 1986; Carver et al 1989;).

1.4.2. COPING THEORY

As an area of interest, coping and the concept of coping, in one form or another, has been acknowledged and has generated interest for decades, especially since the 1960s and 1970s, in conjunction with the developing interest in stress, and the ways in which humans deal with stress (Lazarus 1993). Coping is considered to be a response to a perceived stress and defined as *“constantly changing cognitive and behavioural efforts to manage specific external and/ or internal demands that are appraised as taxing or exceeding the resources of the person”* (Lazarus & Folkman 1984 page 141).

The interest of researchers in the process by which people cope, or deal with stress has over the past decade grown dramatically. For many the starting point has been the pioneering work conducted by Lazarus in 1966, the conceptual analysis of stress and coping offered by him has generated great interest in the topic. Lazarus argued that stress is composed of three distinct processes;

- ⇒ primary appraisal, is the task of perceiving a threat to oneself
- ⇒ secondary appraisal, is the task of bringing to mind a potential response to the threat
- ⇒ and coping is the task of executing that response

Lazarus emphasises that these processes do not occur in an unbroken stream, however there is no doubt that they are easily described in a linear order. He explains that the outcome of one task process may rekindle an earlier process. In other words, if one realises that one is able to cope with a specific stress, then that stress may be regarded as less threatening. Conversely, if a coping mechanism is seen to be less

effective than anticipated one may have to reconsider the level of threat, or the appropriateness of the coping response. The result can be that the entire stimulus-response mechanism may produce a kick-start self-repeating process.

1.4.3. COPING: A LEARNED RESPONSE?

As we are aware coping is an integral part of every day life. The issues of coping usually arise in the context of a serious health crisis or an other serious life problem, but those issues are a parallel for the general one of competence and day-to-day management of affairs. In these cases there are two opposing ways in which to describe the means by which people cope/ manage. One of these views holds that coping and management strategies are a reflection of particular personality traits. Some personalities are better able to manage than others, and some are particularly suited for certain kinds of crises. It is argued that the particular way and the degree of success people have in handling the problem is embedded within them in a trait-like manner.

The other view of this argues that personality characteristics are of little importance in determining how people behave in particular situations. Mishel argues that however people cope, their reactions are learned patterns of behaviour which are not carried around with the person, but are rather equivalent to state-like behaviours which when triggered off by stimuli within the environment in turn act as cues to our cognitive processes and schemata.

1.4.4. SOME ISSUES IN COPING STRATEGIES

There are several ways in which coping styles may be described. Many of these descriptive systems are not mutually exclusive, in that they have been proposed by different theorists and have partial overlap. What is represented by these coping styles are a series of dimensions on which an individual, when confronted by a demand or threat to his environment, can choose one or another type of behaviour in an effort to deal with the stressor. It is proposed to discuss four of these different coping strategies in turn.

1. Lazarus and colleagues, (including Lazarus 1966; Cohen & Lazarus 1973; Folkman & Lazarus 1985; 1988;) have highlighted that, when coping with a demand people can adopt either a problem orientated approach, or an emotion orientated one. The problem orientated approach occurs when the individual directs their efforts towards either handling the problem, ameliorating its causes, actively pursuing its solution, or tackling the threat itself and working to try to reduce it. The emotion-orientated approach refers to the way the individual deals with their reactions to the threat with the concern that their response is not debilitating. Such an emotional regulation occurs when a person does not necessarily cope with resolving a problem but in the management of their reaction to it.

2. Leventhal (1980) has suggested a similar approach, he suggests that people may focus on either fear or danger regulation. Fear regulation is similar to Lazarus' emotional regulation, i.e. people work to reduce their fear and anxiety when confronted by threat. Whereas danger regulation is an attempt to reduce or ameliorate the danger posed by the threat, and any concomitant fear is reduced as the danger is degraded.

3. In what Brickman (1982) and his colleagues term the "medical model" he presents a general model for self-care, pointing out that people make two kinds of attributions with respect to demand, threat, or a problem to be coped with. From

these two distinctions a fourfold table is constructed. Brickman et al (1982) argues that the individual is neither responsible for causing the problem, nor the cure.

4. This strategy discusses the conflict inherent in the individual with a major problem between self-satisfaction and self-preservation.

The models associated with coping consistently suggest that the individual's mental appraisal or attribution of the situation determines their coping style is.

1.4.5. HOW PEOPLE COPE

TYPES OF COPING

Singer (1984) argues that there exist two general strategies which have been adopted for the study of coping stress. One approach is to adopt a theoretical position about the way people function and from there to derive the categories and description of the coping behaviours possible. From this assessment instruments designed to tap these categories are developed, and comparative studies are run. A specific example of such study and the process behind the development of a measurement scale can be seen in the work of Lazarus.

In order to study the coping process, Lazarus and his colleagues developed an assessment instrument called Ways of Coping Questionnaire (Folkman & Lazarus 1980) which was a revised version of the Ways of Coping Checklist (Folkman & Lazarus 1988). The measure consists of a series of predicates, which portray a coping thought or action which people may engage in when under stress. Fundamental to the Ways of Coping is a distinction between two general types of coping; problem-focused, and emotion-focused coping. Lazarus contends that problem-focused coping is aimed at problem solving, or taking action to alter the source of stress, and emotion-focused-coping is aimed at reducing or managing the emotional distress that is linked to the situation. Although most stressors produce both types of coping,

problem-focused coping tends to predominate when people feel something constructive can be done, in contrast to emotion-focused coping which tends to be adopted when the individual regards the stressor as something which must be endured (Folkman & Lazarus 1980). Carver et al (1989) argues that indeed the distinction between problem- and emotion-focused coping is important, but they contend that the distinction is too simple. It is often found that research produces results that form several factors to the Ways of Coping scale rather than just two, (Aldwin & Revenson, 1987; Folkman & Lazarus, 1985).

An alternative strategy to study coping, which Singer points out, is to take a specific stressor, e.g. a terminal illness, or a sudden loss (bereavement). Those who cope successfully are then compared for different reactions to threat against those who do not cope successfully.

1.4.6. DOES THE AGEING PROCESS INFLUENCE COPING STYLE?

As the numbers of people who are living into old age increases, there has been a parallel interest among researchers into the sources of stress experienced by these ageing people, and how they cope with them. Researchers are interested in this for both theoretical and practical reasons. In practical terms, before psychologists can develop clinical interventions to help alleviate distress and unhelpful coping in the older population (as discussed in Chapter 1.2) greater knowledge is required about the age differences in the coping processes.

It is interesting to postulate whether with increasing age people naturally impose and apply their wisdom and experiences to their coping efforts. Inevitably this area is of great interest to researchers working with older adults. They are keen to gain insight into the ways ageing individuals cope with the stressors, the constellation of which are unique to that particular phase in life. Some of the adversities with which older people are required to deal with have been discussed earlier, but they include; out living one's children; facing an increase in health related difficulties; living with

restricted mobility; increase in financial constraints, and the increasing problems which present as the result of ageing.

Early studies, which have investigated coping in ageing individuals, considered maturational theories of coping and gained little support. Lazarus & DeLongis (1983) McCrae (1982) and other studies have suggested that coping styles and an individual's coping ability are stable in adulthood, in a similar way to personality. McCrae (1989) conducted a cross-sectional study on over 600 men and women with an age range of 21 to 91, and he found that ageing had little effect upon coping behaviour in his sample group. He postulates the reason for this was that coping responses are relatively enduring characteristics of individuals.

More recent studies have reported the presence of cross-sectional age differences (Folkman, Lazarus, Pimley, & Novacek 1987; Irion & Blanchard-Fields 1987). Folkman et al (1987) explain that studies of coping/ stress and age differences have generally reported on major life events. They claim that the findings of these studies indicate that older people experience fewer major life events than younger people do. The events experienced by older people involve more losses; associated with health, the work role identity, family and their peer group. However, consideration must be given not just to the differing life events /stresses experienced, but also to the way in which people cognitively appraise them and consequently to how people cope with them.

Professionals are more aware than ever of the importance of assisting and supporting older people through the ageing process. People can be offered help to cope with stress, which will improve the individual's quality of life by regaining some control of their thoughts, emotions and behaviour. Solomon & Peterson (1994) discuss the benefits to be had from the collaborative working of medical and psychosocial professionals. It is suggested that the collaborative approach helps people to cope

with the changes that they face as they age, and in turn this helps them to “age successfully”, in terms of their medical and social adjustment.

The literature appears to be divided as to whether or not age has a direct effect upon the ways in which people cope with the difficulties inherent in life.

1.4.7. MENTAL HEALTH AND COPING

The burgeoning growth in the research regarding the way in which individuals deal with stress i.e. the coping process, has been spurred on by the realisation that there is a correlation between measures of stressful life-events and mental and physical health (Aldwin & Revenson 1987; Chiou, Potempa & Buschmann 1997; Croyle & Hunt 1991; Jong et al 1994; Solomon & Peterson 1994).

Although authors have generally found the associations between the harmful effects of stress and coping to be of a modest nature (Aldwin & Revenson 1987; McCrae 1989), it has been highlighted that these correlations between coping with stressful life-events and health are consistent but modest (Johnson & Sarson 1978). It therefore appears to be that the presence of stress i.e. due to life change or stressful life events, may be less important to general well-being than the way in which the individual appraises and copes with the stress. That is to say the way people appraise the event and go on to cope /deal with the stress is more significant than the causes of the stress.

Aldwin & Revenson (1987) discuss the fact that there is no consensus as to which is the most advantageous and effective coping strategy to employ in terms of mental health. In essence the picture remains unclear as to how well a coping strategy aids the resolution of emotional difficulties, and prevents future ones arising. Inconsistent results appear to have been found in studies that have examined the relation between coping and an outcome measure. In some studies problem-focused coping has been found to decrease emotional distress, whereas emotion-focused coping increases it

(Felton & Revenson 1984). However, the converse has also been reported (Baum, Fleming & Singer 1983).

Croyle & Hunt (1991) have considered the appraisal process of health threat, i.e. how individuals cope when their health is under threat. The self-regulation illness representation model of Leventhal was examined in relation to coping. Croyle & Hunt (1991) argue that cognitive appraisal is just one aspect of any health related coping process, individual beliefs about symptoms; cognitive variables; compliance behaviour; and the emotional consequences of adverse health experiences all play an important role in health and illness behaviours and health care. Detailed investigation of illness-related appraisal and the coping process is required.

Chiou, Potempa & Buschmann (1997) reported on a study which investigated coping methods, and anxiety, and depression levels of patients hospitalised with myocardial infarction. Their findings suggest that subjects most frequently used an optimistic coping style and it was also considered by the subjects to be most effective. Following the heart attack patients tended to cope by employing positive thinking and a positive outlook on life. Low levels of anxiety and depression were displayed by the majority of the participants (15 of the 40 subjects had high levels of emotional distress), it is possible that this is due to a cultural difference. It is important to note the methodological limitations present in the study, primarily the low validity and reliability of some of the subscales, of the translated assessment measures (the Revised Jalowiec Coping Scale) which were used.

Many medical procedures are stressful, but few more so than invasive treatments. The level of anxiety experienced by patients is not necessarily proportionate to the person's diagnosis or the severity of the physical condition of the patient. The role of subjective emotional appraisal, or judgements/ beliefs about a disease or the symptoms (referenced in) Jong et al (1994)

When considering the researchers' motives for investigating coping and health it is to gain understanding and insight into how people can reduce the negative impact of

stressful life events on their psychological well being. The aim of such research has theoretical and practical implications. It least effective coping strategy has found to be the emotion-focused strategies, which can be regarded as attempts to control emotional distress. ✕

Some research has been conducted to examine the relationship between coping strategies and rehabilitation outcome (Sinyor et al 1986; Myrtek & Welsch 1990; Johnston et al 1992). The issues associated with rehabilitation outcome are discussed fully in the following section Chapter 1.5. It is however appropriate to consider the study by Sinyor et al (1986) at this point. In their study Sinyor et al (1986) investigated the relationship between post-stroke depression and levels of functioning, coping strategies and rehabilitation outcome. They reported that certain coping styles were associated with depression and reflected characteristics which led to lower levels of participation in the rehabilitation process. These coping styles were “endorsement of less rational cognitive appraisal” and “behavioural action”, as measured by a coping scale derived from Billings & Moos (1981). ✕

In conclusion, it is important to remember that a variety of factors influence the relationship between coping and mental health outcomes, the level of perceived threat is critical, and influences how the individual will appraise the threat/ stress present.

1.4.8. THE COPE: AN ASSESSMENT OF COPING DEVELOPED BY CARVER ET AL (1989)

The COPE was developed to be an instrument for assessing people's coping styles and the coping strategies, which people employ. Carver argues that The COPE differs in some ways from previous inventories of coping, while retaining some conceptual similarities to them. The aim is to assess active coping, and to distinguish between several distinct aspects of active coping; planning, suppression of attention to competing activities, and the skill of resistance. Carver et al (1989) also set out to assess the extent to which an individual is using coping strategies, which may impede or interfere with active coping. The types of strategies which may have this dysfunctional quality are measured by certain items and include such strategies as, focusing on and venting of emotions, alcohol or drug use as a means of disengaging, mental disengagement from one's goals. The specific qualities associated with coping that are measured by the COPE were included due to the authors view of the structure of motivated action e.g. giving up vs. renewed efforts. It is their view that coping is not fundamentally different from other types of motivated action, although increased urgency may be required. Included within the COPE are scales to measure aspects of coping that are less obviously related to self-regulatory functions, but are important.

It is also possible to use the COPE to measure both situational and dispositional coping styles, and therefore the relation between a subject's general coping strategies and the situation-specific coping responses they make can be compared. Carver et al (1989) report that patterns of dispositional and situational responses were found overall to be similar.

It is important to outline the way in which the COPE has been administered in the current study, in view of the two contrasting ways in which it can potentially be administered. It was decided to use the COPE in a situational format only, this provided details on how individuals cope with the actual experience and process of rehabilitation, thus gaining an insight as to what older people think and feel about

needing rehabilitation, and whether their coping style enables them to get the maximum benefit.

SUMMARY

In this section the multi-faceted complex nature of stress and coping responses have been discussed. The relationship between age, health and coping has been explained and the existing research has been reported.

In the section to follow the subject of psychological and social outcomes will be addressed. The importance of psychological well-being in determining the recovery outcome of illness will be discussed.

1.5 THE PSYCHOLOGICAL FACTORS ASSOCIATED WITH RECOVERY FOLLOWING SURGERY / TRAUMA

Although only a decade ago some researchers argued that in studies investigators paid very little attention to psychological and social outcomes, (Gundle, Reeves, Tate, Raft & McLaurin 1980) this omission has been redressed. Over the last ten years, many studies have been conducted to investigate the influential factors in the recovery process in numerous populations, including the elderly, following both surgical and rehabilitation procedures (Butler et al 1996; Gammon & Mulholland 1996a & b; Myrtek & Welsch 1990; Johnston et al 1992; Partridge, Johnston & Edwards 1987; Wilson-Barnett 1981; Kiecolt-Glaser et al 1995).

Inevitably these studies have investigated the role of different interventions and strategies. Gammon & Mulholland (1996a & b) reported on the effect of preparatory information on post-operative psychological and physical coping outcomes prior to hip replacement surgery. In this studies they found that providing information (pre-operatively, post-operatively and pre-discharge) for the patients, had positive effects on the psychological coping outcomes measured. It is widely acknowledged in both clinical practice and in the research literature that health care professionals struggle to know best how to deal most appropriately with patients who are trying to cope with health problems. Gammon and Mulholland (1996a) have attempted to address this problem by developing patient information. Such an approach is not well documented in the research literature, although Wilson-Barnett (1980, 1981) and Teasdale (1995) have produced non-research findings. However, these articles do not consider information giving in association with psychological or physical coping outcomes. Gammon and Mulholland (1996a) report that the provision of accurate information is a requirement in order to achieve successful patient recovery. It is important to state that the measure of coping obtained in this study was not by means of a standard coping assessment e.g. Lazarus & Folkman's Ways of Coping Questionnaire (1988) or Carver et al's The COPE (1989). But rather they used standard questionnaires: Hospital

Anxiety and Depression Scale (HADS), Rosenberg Self-Esteem Scale, Health Illness Questionnaire, and a subjective linear analogue coping scale. None the less they produced interesting findings.

Among the medical studies that consider psychological and psychosocial outcomes the majority are related to coronary surgery and hip replacements. Gundle et al (1980) reported on a group of 30 patients interviewed before and 1-2 years after surgery. Most patients were found to have made a good physiological recovery, however, a high proportion of them were “psychologically and socially disabled” at the time of the follow-up. The main difficulties reported included inability to work, sexual dysfunction, low self-esteem, depressive symptomatology, and lack of pleasure derived from close relationships. Admittedly the numbers of patients interviewed for this study were quite small, but none-the-less the results show some interesting findings. Since the work of Gundle et al in 1980 many investigators have reported on the importance of a holistic approach to post-surgery/ trauma care and rehabilitation.

Myrtek & Welsch (1990) have investigated the key factors in determining the likelihood of a positive outcome following rehabilitation. They conducted follow-up assessments patients who had undergone inpatient rehabilitation up to 24 months later. The findings of this study indicate that important predictors of rehabilitation outcome include, age, mood, frequency of physical problems, sleep disturbance, extra jobs, pervious hospital admissions, physical activity levels, and level of exercise. However, Myrtek & Welsch discussed their findings in relation to a framework of illness behaviour, rather than in terms of coping style, as will be discussed by this present study.

1.5.1 THE ROLE OF PSYCHOLOGICAL STRESS ON HEALTH

Given the importance of emotional well being upon health this has been viewed as a significant area of investigation. Some research has focused on the role of specific psychological attitudes and prognosis and the likelihood of developing subsequent conditions, for example, coronary heart disease, myocardial infarction, cancer, and even death. Emotional distress has been associated with both the prolonging of illness, and the deterioration into illness. Emotions including hopelessness, anxiety depression and personality characteristics.

Researchers have investigated the role of hope and optimism, on health and outcome, the adverse impact a lack of hope has on psychological and physical health (Alloy et al 1988; Beck et al 1974; Everson et al 1996; Greene 1981 1989; Scheier & Carver 1985, 1992).

Everson et al (1996) investigated the relationship between levels of hopelessness (high, moderate and low levels) and mortality, incidence of heart attack, and cancer within a population based sample. The 2428 men who participated were part of the Kuopio Ischemic Heart Disease study, which was a longitudinal study into psychosocial risk factors for ischemic heart disease. It was found that those men with moderate and high hopelessness were at a significant risk of mortality, they were also three times more likely to die as a result of violence or injury. The study found that these relationships held even after adjustment for a number of factors was made, e.g. behavioural risk factors, perceived health, and social support among others. The study concludes that hopelessness is a strong predictor of adverse health outcomes, independent depression, and traditional risk factors. It is however important to point out that in the study it was just a 2-item measure of hopelessness that was used, but the results report the items to be moderately intercorrelated with somewhat limited internal consistency.

Chiou, Potempa & Bushmann (1997) reported on anxiety, depression, and coping methods among patients who had suffered a heart attack. Their results indicate that the majority of subjects experienced low levels of anxiety and depression. A positive

relationship was found between anxiety and coping styles, but no link was found between depression and coping style. It was reported that the domain of “optimistic coping” (on the Jalowiec Coping Scale) was the most frequently used and the most helpful coping method reported by subjects. Chiou et al (1997) found emotional reactions were related to 4 factors: age, social class, actual and perceived severity of the attack.

The role of the optimistic coping style appears to support the findings of Everson et al (1996) who reported that optimism plays a positive role in avoiding premature mortality in patients with heart disease.

The issue of healing and psychological distress has been reported by Kiecolt-Glaser et al (1995). In their study they investigated the adverse effects psychological stress has upon the immune system and consequently, the healing process of wounds. The results reported found that it was possible that important clinical implications could be identified in the stress-related defects that were present in repairing wounds.

In contrast Denollet et al (1996) investigated the role played by personality as an independent predictor of long-term mortality in-patients with coronary heart disease. It was found that patients with coronary heart disease had a significantly greater risk of mortality if they also had a type-D personality. The type-D personality may be defined as being when an individual's tendency is to suppress all emotional distress.

This study raises interesting questions relating to the association between emotional distress, personality, and mortality in the wider arena than just patients with heart disease. It is possible that personality plays a vital role in survival and recovery from a variety of conditions and, not just in cases of heart disease.

Research has highlighted the fact that a significant degree of psychosocial morbidity may persist despite appropriate coronary surgery and despite of the patient making a good physical recovery (Grundle et al 1980).

It is important to remember the important role that social support plays in the life of older people (Wenger et al 1996; Wenger 1997), and in times of ill health, or recovery from ill health it is possible to hypothesis about the importance of social support at such times. Kulik & Mahler (1989) have investigated the issues of social support and recovery from surgery. Their findings suggest that married patients who received higher levels of support recovered more quickly and used less pain relief medication than those who received low levels of support. In this study social support has been measured in a quantitative, objective fashion rather than in a qualitative or subjective way. Kulik & Mahler assessed the frequency of contact patients had with their supports, rather than the individual's assessment of the perceived quality of the relationship.

In this study present study, participants have been asked to report on the perceived amount of social support they receive, and how helpful/beneficial they find it.

1.5.2 WHAT IS RECOVERY?

Measuring what is termed recovery is not without difficulty, as there are such a wide variety of ways to measure recovery. Each profession have their own instruments, and most relate to, and investigate a specific function. For example, electrocardiogram assesses recovery following a cardiac arrest. Some people use return to work as an indicator of recovery, others subsequent rates of hospital re-admission, and at times even death is the yard-stick. These indicators provide information regarding the medical and physical level of recovery attained. However, it is important to bear in mind the limitations and possible problems of such recovery measures. When lengths of hospital stay and re-admission rates are used, other pressures, complications or policies regarding bed allocation may be the significant issues, rather than recovery. The importance of return to work as an indicator of recovery appears to be fundamentally flawed, as no account is taken of either the type of work previously done, or the age of the individual and their consequent value in the job market.

In addition to the medical /physiological factors considered when measuring recovery, a variety of factors can potentially be assessed in order to indicate the degree of psychological recovery /adjustment which has occurred. Such factors as, behavioural patterns, emotional distress, lengths of hospital stay, ability to control pain and level of social support can all provide information about the recovery potential.

The head injury literature contends that recovery can only be achieved by a return to the pre-incident level of functioning, which given the nature of head injuries is often impossible. The term "outcome" is used to describe a patient who has reached the optimum level of functioning possible for them.

In the physical rehabilitation literature it appears that there exist three possible definitions of recovery from illness/ surgery, (Johnston, 1984) it is proposed to discuss each in turn now. Recovery can be defined as 1) the process of returning to normal functioning; 2) the process of returning to premorbid levels of functioning; and 3) the process of change from a state of illness to a state of health. As Johnston (1984) points out all three classifications are difficult to apply due to the problems associated with both the definitions and measurement of concepts like normal and premorbid levels of functioning, illness and health, which are fundamental to the earlier definitions of recovery.

It is important to remain aware of the potentially divergent goals of the patient and the doctor. The doctor is likely to assess recovery on grounds of physical/ bodily functioning, but the patient may consider activity levels and abilities to be of greater significance.

1.5.3 ASSESSMENT OF RECOVERY

If we accept that the recovery process is dependent on several psychological as well as physical factors it is therefore important to investigate and assess recovery among patients. From the literature it certainly appears to be the case that considerable attention is now given to the importance of psychological factors in the recovery process. However, it is worth considering how investigators (Wallston, Wallston Kaplan Maides 1976; Partridge & Johnston 1987; Partridge & Johnston 1989; Johnston et al 1992) measure these factors.

Johnston (1984) gives detailed account and warning of measuring recovery, she debates the multidimensional nature of the recovery process. She warns against research results adopting multiple indices of recovery and reporting on them as though they measure the same underlying dimension. It is possible that the state of the patient is assessed rather than a process of change. It is critical to highlight this area and avoid making such assumptions, and drawing conclusions based of erroneous assessments procedures.

Researchers have used the theory of Locus of Control to investigate patient beliefs about control over recovery. Early investigations into health locus of control were conducted by Wallston et al (1976) and the Health Locus of Control Scale was developed.

Patients' locus of control following a spinal chord injury has been assessed. Shadish Hickman & Arrick (1981) found that distress in those patients who had an external locus of control and a recent injury was higher than in patients with internal locus of control. However, when patients are undergoing rehabilitation it is perhaps useful to assess their locus of control in terms of assisting them in their recovery/adjustment to reach their potential. Therefore, rather than determining which type of control locus they adopt it is helpful to consider the type of recovery locus of control they adopt.

An interesting way of measuring recovery is to assess patient's perceptions of perceived control over recovery from which it has been proved to be possible to predict recovery

outcome (Partridge & Johnston 1989; Johnston et al 1992; Wilson-Barnett 1981). Patients who perceived they had personal control of recovery were found to have more positive outcomes, the patients reporting internality were associated with faster recovery. As a result of these findings Partridge & Johnston (1989) developed an instrument, Recovery Locus of Control, designed to measure patients' perceived control over their recovery. Their results support the notion that coping by those with more internal beliefs is more adaptive in situations which are stressful, and the degree of internal locus of control may be predictive of improved health outcome in those patients with physical disabilities (Partridge & Johnston 1989).

Further research has investigated the extent to which intervention can change patients' perceived control (Johnston et al 1992). The success of an intervention aimed at increasing patients perceived control found that it was possible to effect such a change, this was done by providing patients with information aimed at increasing their levels of perceived control. Given previous findings of Partridge & Johnston (1989) it may be possible to improve recovery via perceived control and recovery locus of control.

In a study of post-operative cardiac patients Wilson-Barnett (1981) relied upon mainly qualitative information to describe the aspects of recovery, which appear to have greatest importance to patients. Her study concludes that advice, and information is important in order for patients to plan for the future. In addition, social support was found to be important for recovery and conversely those without or with a reduced social network were reported to be lonely and insecure.

The influences on recovery show that many patients are left with a degree of impairment, and this is most often for psychological reasons. In cases of severe illness and surgical procedures it is possible that the psychological phenomena may have a long lasting effect, which until recently has gone unrecognised.

Patients recovering from similar surgical procedures do not all necessarily make a similar recovery; some people manage to function in many areas while others become

totally dependant. It is important in clinical settings to be aware of the motivational attitudes, the supportive structure and other psychological factors that influence one's ability to function.

In this study it is proposed to monitor and record the progress made by a group of men and women who were undergoing rehabilitation following a fall or a stroke. The study was interested in assessing the individuals' perceived progress by means of self-report and the nursing staff's perception of progress made. It is public knowledge that hospital waiting lists are increasing; this was of interest within the study also. The length of time spent waiting by patients for rehabilitation services and the consequences of this prolonged waiting period on patients' progress. The issues associated with waiting will be discussed in the subsequent section.

1.6 WAITING

1.6.1 THE LITERATURE

Health care professionals have for many years now been highlighting the increases in time patients spend waiting for treatments. The media have been involved in flagging up the issues of hospital waiting. However, different people have slightly differing perspectives, if not agendas, relating to the issue of waiting. At times it is the length of waiting lists that are reported, and at other times it is the length of time patients spend waiting in wards/ clinics to be seen by a doctor. It is then argued that it is due to a lack in Government funding that causes such waiting lists, and at times it is argued that short staffing is to account for the problem. Whatever the cause of the problem the end result is the same, which is that patients do spend lengthy periods of time waiting. However, it is also important to remember that in terms of the laws of supply and demand it is inevitable that demand will be in excess of the supply of the resource. Furthermore the population has grown to the extent that the Health Service is stretched, and with a population that is ever increasing in age and longevity a greater burden is being placed upon the existing resources. This burden is increasing with the passage of time as people are living longer.

Numerous professionals have reported on the fact that waiting has become an issue within the Health Service. The economic argument exists and is for administrators to address, but the primary concern for health workers, is the impact this waiting has upon their patients in terms of their outcome and recovery. The importance of psychosocial factors associated with recovery, coping, social support, etc. has become apparent, the current published research does not reflect the psychosocial factors that are involved in the waiting process. Despite the potential importance of the relationship that might exist between length of waiting time and recovery/ success there is a dearth of literature available on the subject. The reports of studies that have been conducted indicate that such difficulties affect services across the board: from psychiatric services; Accident & Emergency departments; surgery; services for older people; physical rehabilitation; and some child services (Davies,

Payne & Jenkins 1996; Ogden 1997; Koch et al 1997; Fawcett-Henesy et al 1991; Carlisle 1996; Mahon 1997; Bowman et al 1996; Serrano-Ikkos, Lask & Whitehead 1996).

The majority of these articles discuss the nature, severity, of the waiting period and service delivery difficulties that result from the waiting problem. Serrano-Ikkos, Lask & Whitehead (1996) investigated the psychosocial morbidity of children awaiting heart or heart-lung transplantation, and the effect upon their families. There are many concerns and doubts for families regarding transplant operations for children. However, these individuals are in a unique situation because their medical condition is chronic and ultimately their lives are in danger; the operation too, has its risks. The experience of older adults awaiting services does not parallel the experience of waiting for a donor organ before major surgery can be embarked upon.

Investigations of the waiting time for surgical procedures and their outcome has been reported (Kee et al 1997; Koch, Piek, David, Mulder et al 1997). Koch et al found that the success of coronary angioplasty is unaffected by the duration of waiting time.

Some studies have reported on patients' and staff perceptions of waiting times and waiting list procedures (Westbrook 1995; Clover, Smyth, Sanson-Fisher, Sprogis 1996). Westbrook (1995) investigated the views of clients and therapists on different waiting list procedures. Clover et al have reported on the perceptions of General Practitioners of surgical waiting times. They concluded that G.P's consider a substantial number of patients wait longer than is considered reasonable (31% of patients waited in excess of 3 months) for surgical consultations.

1.6.2 WAITING AND THIS STUDY

In this study, the issue of waiting is considered in relation to older adults and waiting lists, and the time these patients spend waiting for allocation to services. A dearth of literature was found to exist in relation to this issue for elderly patients. The available literature reports on waiting lists for specific hospital departments and services, e.g. psychiatric services, surgical and cardiac consultations, and transplantation in paediatrics. Never the less the issue of frustration experienced by patients awaiting NHS services is considered pertinent.

People experience frustration as a regular emotion, which is endured relatively frequently. Many daily tasks / situations give rise to it, whether it is waiting at a bus-stop, or waiting in traffic when in a hurry, or waiting to be seen in your G.P's surgery. It is impossible to avoid experiencing frustration to some degree on a daily basis, but of interest is the way in which different people deal with and cope with the feeling evoked by this emotion.

In this study the participants have recently been hospital in-patients and most often they are detained there until it is possible for them to attend for rehabilitation in the Day Hospital. Often patients are medically ready for rehabilitation some time before there is a place available for them, therefore they are detained in hospital for prolonged periods of time on occasion. It is speculated that this period of waiting will cause patients to become frustrated, and it is aimed to report this. In this study frustration is measured by means of specific open-ended questions administered during an interview with participants and designed to record levels of frustration experienced by the participants.

2. AIMS AND HYPOTHESES

The aim of the current study is to identify which coping strategies promote positive rehabilitation outcomes and minimise psychological distress between and within subjects over time. It is hypothesised that

- a) the length of time that patients have waited for their rehabilitation will affect their initial attitude towards making progress,
- b) the coping style that the patient uses will influence the progress they make during rehabilitation
- c) subjects' reported anxiety and depression levels will influence rehabilitation progress

2.1 HYPOTHESES RELATING TO LIFE EXPERIENCES AND FRUSTRATION

A) It was predicted that subjects would report that their previous life experiences had been be a source of support and helped them to cope with their current experience.

B) The length of time patients have spent waiting to commence rehabilitation will be a reported source of frustration for the majority of participants.

2.2 HYPOTHESES RELATING TO SOCIAL SUPPORT

A) It is predicted that a positive correlation will exist between the individual's level of social support and the progress they make during the time spent in rehabilitation.

B) Those patients who have low levels of social support will score more highly on the HADS - Anxiety Scale (will be more anxious) than those patients who have higher levels of social support.

C) Those patients who have low levels of social support will score more highly on the HADS - Depression Scale (will be more depressed) than those patients who have higher levels of social support.

2.3 HYPOTHESES RELATING TO REPORTED LEVELS OF ANXIETY & DEPRESSION

A) It is anticipated that active coping styles will be positively correlated with a reduction in reported levels of anxiety and depression in participants.

B) Participants beginning rehabilitation who report using active coping styles will report lower initial levels of anxiety.

C) Participants beginning rehabilitation who report using active coping styles will report lower initial levels of depression.

2.4 HYPOTHESES RELATING TO COPING STRATEGIES

A) It is predicted that the active coping styles will be positively correlated with progress made during physical rehabilitation.

B) More active coping style will be positively correlated with more internal “recovery locus of control”.

2.5 HYPOTHESES RELATING TO RECOVERY LOCUS OF CONTROL

A) A positive correlation is predicted to exist between internal “recovery locus of control” and progress during physical rehabilitation.

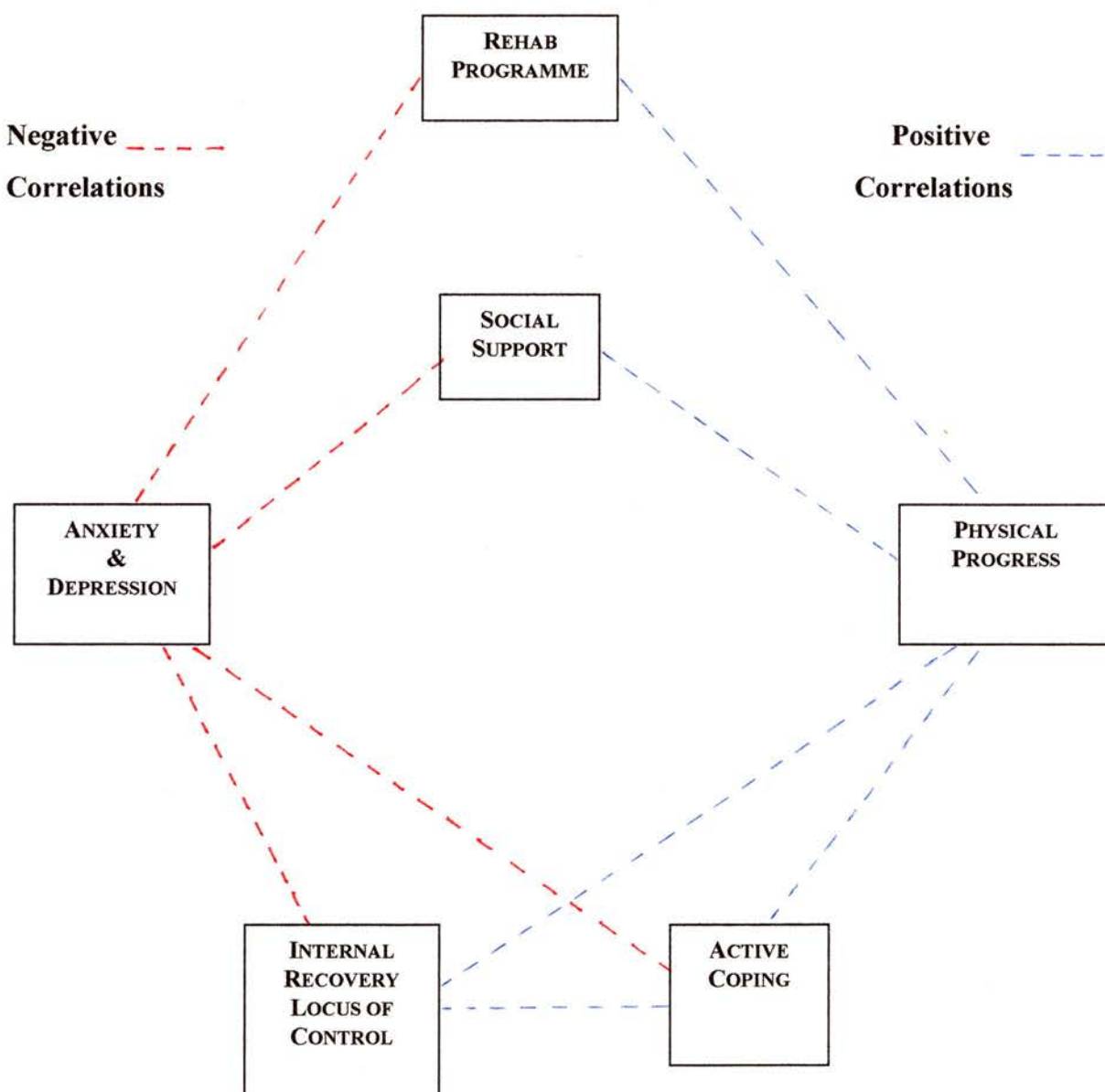
B) A positive correlation is expected between internal “recovery locus of control” and the initial levels of anxiety and depression reported by participants.

2.6 HYPOTHESES RELATING TO OUTCOME OF REHABILITATION

A) It is expected that a difference will be found to exist between the levels of anxiety reported by participants as they commence rehabilitation and 4 weeks later.

B) It is expected that a difference will be found to exist between the levels of depression reported by participants as they commence rehabilitation and 4 weeks later.

2.2 IN SUMMARY



3. METHOD

3.1. DESIGN:

The aim of the current study is to identify which coping strategies promote positive rehabilitation outcomes and minimise psychological over time. The current study is both between-subjects and within subjects in nature.

The study was awarded ethical approval from the Tayside Committee on Medical Research Ethics (Reference Number 227/97) and is included in appendix 2.

3.2. SUBJECTS AND SAMPLE SIZE:

The subjects who participated in the study included 18 females and 10 males. Their ages ranged from 69 – 95 years.

3.2.1. SELECTION CRITERIA

All patients commencing rehabilitation within the four-month period of the study were eligible to participate, subject to their agreement and providing they fulfilled the exclusion criteria outlined below.

3.2.2. EXCLUSION CRITERIA:

Only those individuals assessed on the Mini-Mental State Examination (MMSE) (Folstein, Folstein, McHugh 1975) as having performed within the range of 24 - 30 were included in the study. Those individuals who scored below 24 on the MMSE were excluded from the study, on the grounds that if they were suffering a degree of cognitive decline, it may be more difficult for them to express themselves. There would, therefore be no way of being confident about the accuracy of the information they would provide.

3.3. ASSESSMENT MEASURES:

The standardised measures used in this study were the Mini-Mental State Examination, the Hospital Anxiety and Depression Scale, and the COPE. The non-standardised measures used were the Recovery Locus of Control Scale, a purpose-made structured interview, and a nursing assessment also drawn-up for the study. There follows detailed description of the instruments used in the study.

3.3.1. MINI-MENTAL STATE EXAMINATION (MMSE)

The Mini-Mental State Examination (Folstein et al 1975) was used in order to screen out those patients in whom evidence of cognitive impairment was detected. The MMSE is one of the most commonly used instruments for detection of cognitive impairment among older adults. Folstein et al (1975) report that it has been found to be both quick to administer and simple to use, and it is acceptable to both patients and testers. The instrument consists of 20 items to be administered to the individual by a trained professional. It is a standardised measure and the questions tap the range of cognitive skills; orientation to time and place, memory and attention, language skills, and visio-spatial abilities. The standard scoring criteria of the MMSE were followed. The possible range of scores is from 0 – 30: a score of 30 indicates that there is no evidence of cognitive deficits. It is generally accepted that an MMSE score of below 24 denotes that a degree of cognitive impairment is present, (Hill & Backman 1995) and a score of 20 or below denotes the patients is suffering from dementia.

3.3.2. HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS)

The Hospital Anxiety and Depression Scale (Zigmond & Snaith 1983) was used to obtain a measure of anxiety and depression within the sample. The HADS is a reliable and valid instrument for detecting these states within a hospital based population, the severity of the emotional problems is also assessed by the HADS. It is acknowledged that neurosis may co-exist with a physical illness which may cause

the patient to be more distressed by the symptoms of their illness, which can in turn lead to a complicated clinical presentation, and recovery can be delayed. Such a presentation not only prolongs hospitalisation but a poor response to treatment may result, and frequently, unnecessary investigations and referrals to other hospital departments are made. The HADS is designed to serve as a self-assessment screening scale to identify those individuals who are suffering from the symptoms associated with clinically significant anxiety and depression. The anxiety scale measures the state of generalised anxiety, not that focused on any situation. Manifest somatic symptoms of the anxiety state are not reflected either. The depression scale mainly measures hedonic tone (i.e. loss of interest and diminished pleasure response). For each scale, scoring of 0-7 indicates normal; 8-10 mild; 11-14 moderate, and 15-21 severe anxiety/depression.

3.3.3. THE COPE

The COPE (Carver, Scheier & Weintraub 1989) was used to assess the type of coping style subjects employed. Within the COPE there are 13 distinct scales, many of which are based on specific theoretical arguments about functional aspects of coping, plus two additional scales. This instrument examines the extent to which self-regulatory functions are implicit in people's coping behaviours. The COPE is a multidimensional inventory designed to assess the different ways in which people respond to stress. The questions in it fall into one of 3 sections;

- ⇒ one measures distinct areas of what might be called 'problem-focused coping'
- ⇒ the second examines what might generally be considered to be 'emotion-focused coping'
- ⇒ the final section measures coping responses that might be considered to be less useful / adaptive

The responses are classified as being in 15 different sub-scales. Details are given overleaf of each of each of the different sub-scales.

The COPE is composed of the following coping sub-scales:

- | | |
|---------------------------------------|--------------------------------------|
| ♦ Active | ♦ Positive Reinterpretation & Growth |
| ♦ Planning | ♦ Restraint |
| ♦ Seeking Instrumental Social Support | ♦ Acceptance |
| ♦ Seeking Emotional Social Support | ♦ Focusing on & Venting of Emotions |
| ♦ Suppression of Competing Activities | ♦ Denial |
| ♦ Turning to Religion | ♦ Mental Disengagement |
| ♦ Behavioural Disengagement | |
| ♦ The use of alcohol | ♦ The use of humour |

Each sub-scale is composed of 4 statement to which respondents answer on a scale of 1-4, with 1 being “don’t do this at all” and 4 being “do this a lot”. Subjects’ scores for each sub-scale are obtained by adding the scores of the 4 statements together. Scores for each sub-scale can, therefore, range from 4 to 16.

For further discussion of The COPE see page 30.

3.3.4. THE RECOVERY LOCUS OF CONTROL SCALE (RLOC)

The Recovery Locus of Control Scale (Partridge & Johnston 1989) assesses a person’s perceived control over his recovery: the score is reported in terms of internal /external beliefs. The RLOC is a 9 item scale, with five of the items assessing internal beliefs and four items assessing external beliefs. Responses are recorded on a five point Likert-type scale from 1 (strongly agree) to 5 (strongly disagree). Scoring of the RLOC reveals the strength of the individual’s internal recovery locus of control belief. A high score on the RLOC demonstrates the individual has a strong internal locus of control, and a low score indicates a strong external locus of control.

3.3.5. STRUCTURED INTERVIEW

A structured interview was conducted with each individual. The interview was devised for the purpose of this study. It was compiled on the basis of the information that was relevant to the aims and hypotheses of the study. The interview consisted of three sections;

- ◆ demographic information
- ◆ self-reported coping strategies
- ◆ perceived levels of frustration.

The first part of the interview obtained demographic information on each subject. The subject reported their age, sex, marital status (whether single, married, divorced, or widowed), and profession prior to retirement. On the basis of the information relating to the subjects' previous work history it was possible to identify the social class to which they belonged (OPCS 1991). Subjects were asked to describe their living arrangements (whether alone, with spouse, with family, in residential care, or other). They were also asked to rate the frequency with which they received family visits.

The second part of the interview obtained self-report information related to the subjects' attitude towards their situation and their coping strategies. Participants were asked to respond to 7 open-ended questions concerning their length of stay, amount of family and / or social contact, rate of progress, and their attitude towards the present and future. Two of the 7 questions were designed to assess the subjects' perceived ability to cope with time spent waiting for allocation to the rehabilitation services.

The third part of the structured interview required the subjects to give ratings of their perceived levels of frustration. Each subject was asked to respond to 7 questions, which related to the extent to which they felt frustrated. This instrument was administered as part of the structured interview, and was also in the form of a self-report scale. A series of 7 open-ended questions were devised in order to elicit from



patients the extent to which they were experiencing frustration. Each subject was given a standard definition of frustration upon which to base his or her responses, as derived from The Collins English Dictionary-Second Edition. The question asked of subjects was based upon this definition and was as follows;

"While you were in hospital did you feel frustrated by anything? By this I mean, did you feel your efforts, or plans were being hindered by anything? In other words, while you were in hospital did you believe there was anything hindering, or thwarting you?"

3.3.6. NURSING ASSESSMENT OF PATIENT WELL-BEING

An assessment was compiled for the purpose of this study in order to gain the objective opinion of the nursing staff about the subjects' progress. The assessment was compiled in conjunction with the Charge Nurse. A "Named Nurse" conducts a holistic approach to the care and management of each hospitalised patient. The "Named Nurse" of each subject was asked to complete this assessment of the well-being of the subjects. This assessment provided an alternative assessment and report of the medical well being of the subject and the psycho-social influence upon this. This information was used to compare with the self-reports of the subjects.

3.4. RESEARCH LOCATION:

The study was under taken in the two local Day Hospitals, which specialise in meeting the physical rehabilitation needs of older people within the Dundee area. The Day Hospitals are located in the east and west of the city, and referrals are accepted from within the catchment area of each. All subjects participating in the study were resident in the community throughout the duration of the study, and they attended the Day Hospital on an out-patient basis.

3.5. PARTICIPANT CONSENT:

Throughout the duration of the study the Charge Nurse approached each new patient attending the Day Hospital on their first day and the study was introduced to them. At this point the patient was offered a copy of the Patient Information Sheet to read. This leaflet explained the background to, and rationale for, the study. Patients were then given 24 hours to read the information leaflet, and they were then visited again by the researcher. At this point a detailed explanation of the project was given, and details of the exact involvement of participants was explained. If the patient had any questions about the study, these were answered, and subject to the patient's agreement, their informed consent was sought, prior to their inclusion in the study.

A copy of the information sheet is given in Appendix 3

3.6. DATA COLLECTION:

All of the research data was collected from each of the participants by the same researcher.

3.7. RESEARCH PROCEDURE:

Over a four-month period, each consecutive new attendee at the Day Hospitals was approached by the Charge Nurse, who offered them a copy of the Patient Information Sheet to read. The researcher arranged with the Day Hospitals to meet with the patients on their second visit to the Day Hospital in order to explain the study, and enquire about their willingness to participate in it. Once consent had been obtained from the subjects the researcher then interviewed them. In order to maintain privacy and confidentiality, all interviews were conducted with only the subject and the researcher present. Each subject was asked to complete all of the assessments in each of the two testing sessions (with the exception of the MMSE and the demographic data which were only administered on the initial session).

The testing session lasted approximately 45 minutes. The assessments were administered in the same order to all subjects, which was as follows;

- ◆ Mini-Mental State Examination
- ◆ Structured Interview
- ◆ The COPE
- ◆ Recovery Locus of Control Scale
- ◆ Hospital Anxiety and Depression Scale

Subjects were re-assessed using the measures four weeks later, and the format of the initial test session was maintained. At this time nursing staff were also asked to complete the Nursing Assessment of Patient Well-Being form for each subject.

Copies of all assessments can be found in Appendix 4.

3.8. ANALYSIS OF DATA:

3.8.1. SUBJECT CONFIDENTIALITY

In order to maintain subject confidentiality, each subject was assigned an identification number, which was entered into the computer. Subjects' names were removed from all assessment measures and interview schedules once the data had been collected; only the unique patient identification numbers were left. In addition, the data was password protected once entered into the computer.

3.8.2. DATA ANALYSIS

A combination of quantitative and qualitative analysis will be employed in this study. Over recent years the frequency with which qualitative methods have been used has increased. Qualitative analysis has been reported by many researchers to make best use of the very rich data which has been collected (Miles & Huberman 1984; Miller et al 197; Stiles 1993). It was decided to use a qualitative approach to

analysis of some of the data, because it was felt that some of the richness of the subjects' responses would have been lost if they had been quantified. It is becoming increasingly popular to report a combination of quantitative and qualitative analyses. The information obtained by means of the structured interview was believed to be appropriate for qualitative analysis, and it is then also possible to gain a greater understanding of exactly how the subjects feel about hospital waiting times.

All data obtained, for quantitative analysis were entered onto and analysed using, the Statistical Package for Social Sciences (SPSS) for Windows/ Student Version. Statistical tests are as indicated in the text. Each subject completed all the assessments on the initial session, but two subjects were unable to complete the assessments on the follow-up session: as a result there are two missing data sets for the second assessment.

Parametric statistics require that data meet the following assumptions:

- ◆ The group of subjects is an independent random sample from a Normally distributed population.
- ◆ The variance of the group is equal.

To ascertain whether parametric statistics could be employed to analyse the data, the Kolmogorov-Smirnov Goodness of Fit Test was used to determine whether the measures differed significantly from the normal distribution.

3.8.3 STATISTICAL POWER

Each Day Hospital has the capacity to have 2 new patients per week; a potential total of 64 patients over a four month period. Allowing for the fact that approximately 50% of these people may be suffering from a degree of cognitive impairment, the sample size was expected to be at least 30. A large effect size was anticipated on the

basis of previous research. The significance level was set at $p < .05$. This suggests a power of = 0.8 for the analyses to be used, which was deemed acceptable. A sample size of 30 satisfies Cohen's criteria (1992).

4 RESULTS

This results chapter is divided into five sections.

1, in **section 4.1** a vignette is given to illustrate the presentation of the typical subject, also included is a case illustration of a subject who was entirely different.

2, **section 4.2**, provides a description of the demographic information pertaining to the subjects who participated in this study.

3, **section 4.3**, reports upon the qualitative analysis performed on data obtained from the structured interview.

4, in **section 4.4**, the statistical analyses that are reported relate to the relationships between coping style, recovery locus of control, reported levels of anxiety and depression, and progress made in rehabilitation.

5, the final **section, 4.5** reports on the analyses of unanticipated findings.

4.1 A VIGNETTE ILLUSTRATING THE TYPICAL SUBJECT

In an attempt to summarise the responses given by the participants when interviewed using the structured interview, the following vignette is offered as representing 'the average participant' scenario.

Mrs A is aged 82 years old; she is widowed and lives alone. Mrs A spent most of her working life as a housekeeper. She receives many visitors to her home each week and in addition she enjoys getting out of her house to collect her newspaper daily. She considers her family to be a great source of support for her. Mrs A reported that she goes to her son for tea every Thursday, and she spends Sunday with her daughter. Mrs A is optimistic about the future, she is not only looking forward to her 60th wedding anniversary, but also her granddaughter's wedding.

Attention must also be given to the out-liers i.e. those participants who are divergent from this description and do not fit with the average respondents. A second case vignette is included as an example of one such out-lier. The case of Mr. B is given overleaf.

Mr B is aged 90, he is widowed and lives in residential care. He reports that he has little to no contact with his family. Mr B has two sons; one who lives in Canada, and the other lives a three-hour drive away. Mr B is despondent about the future, believing that he has no future, and that he no longer has a purpose to life.

4.2 DEMOGRAPHIC RESULTS

Demographic results were obtained during the structured interview, which was conducted on the first meeting with each subject. A total of 28 participants were interviewed on their second day at the Day Hospital. However, it was possible to follow-up only 26 of the subjects. The missing 2 subjects had been discharged from the Day Hospital prior to the 4 week follow-up assessments being carried out.

4.2.1 GENDER

Of the 28 subjects there were 18 females and 10 males.

4.2.2 AGE

The age range of the participants was from 69 – 95 years old. The mean age was 80 years. The modal age was 82 years.

4.2.2 MARITAL STATUS

6 subjects (21%) married
12 subjects (43%) widowed
10 subjects (36%) single

4.2.3 LIVING ARRANGEMENTS

15 subjects (54%) lived alone in their own home
6 subjects (21%) lived with their spouse in their own home
4 subjects (14%) lived in residential care / supported accommodation
3 subjects (11%) lived with their family

4.2.4 PERCEIVED LEVEL OF SOCIAL SUPPORT

7 subjects (25%) perceived the level of social support they received to be “none at all”:- they spend no time in the company of other people on a daily basis.

6 subjects (21%) perceived the level of social support they received to be “low”:- they reported spending between 1-4 hours in the company of other people on a daily basis.

5 subjects (18%) perceived the level of social support they received to be “medium”:- they reported spending between 4-8 hours in the company of other people on a daily basis.

10 subjects (36%) perceived the level of social support they received to be “high”:- they reported spending over 8 hours in the company of other people on a daily basis.

The table below gives a breakdown of the levels of social support and the number of subjects responding in each way.

TABLE 1 SUBJECTS PERCEIVED LEVEL OF SOCIAL SUPPORT

Perceived Level of Social Support	No. of Subjects Responding
None – no time	7 (25%)
Low – 1-4hrs	6 (21%)
Medium – 4-8hrs	5 (18%)
High - >8hrs	10 (36%)

4.2.5 SOCIAL CLASS

Social class was calculated based on subjects’ previous employment history.

8 Subjects (29%) social class V (unskilled manual workers)

3 Subjects (11%) social class IV (semi-skilled manual workers)

8 Subjects (29%) social class III (M) (skilled manual workers)

7 Subjects (25%) social class III (N) (skilled non-manual workers)

2 Subjects (7%) social class II (intermediate)

0 Subjects (0%) social class I (professional)

4.3 ANALYSIS OF DATA OBTAINED FROM THE STRUCTURED INTERVIEW

4.3.1 HYPOTHESES RELATING TO FRUSTRATION

A) *It was predicted that subjects would report that their previous life experiences had been be a source of support and helped them to cope with their current experience.*

From the results obtained it was not possible to support the hypothesis. It was found that subjects did not report that their previous life experiences had helped them to cope with their current situation.

Participants were asked the following three questions,

- a) While in hospital what had they done which had helped them to cope?
- b) What previous life experiences may have prepared them for their stay in hospital, and how had they coped with that?
- c) What 3 things did they feel were currently helping them to cope?

A matrix of the responses is given below.

TABLE 2 A MATRIX OF EXAMPLES OF POSITIVE COPING

	While in Hospital	Previous Experience	Currently Helping
Personal Characteristics	"Being positive" "I did as I was told"	"Been in hospital before" "You just have to"	"My attitude/ be positive" "My determination"
Family			"Wife" "Grandchildren"
Professionals	"The doctors"		"Nurses" "Doctors"
Activities/Pastimes			"Reading/TV/Music" "Getting out every day"
Religion			"The church" "The minister"

The results are presented in the form of a checklist matrix which was used to investigate the responses. Table 2 overleaf shows the types of answer subjects gave in response to the 3 questions asked of them. While in hospital subjects reported utilising limited sources of support in order to help them cope, the main reported source came from the individual themselves in the form of personal characteristics: personal attitude; determination; and having a positive outlook. Likewise, in response to the question relating to previous life experiences a limited response repertoire was obtained. Subjects reported that they were unaware of anything in their past which had prepared them for their current experience. In response to the third question (the things the person felt were helping them to cope currently) a much wider range of responses was obtained. Subjects' responses were categorised into 4 different domains: personal characteristics; family; past-times; and religion.

It was found that the previous life experiences of subjects were not a frequently reported source of coping. From the results obtained it was not possible to support the hypothesis.

B) It was hypothesised that the lengths of time patients have spent waiting to commence rehabilitation would be a reported source of frustration for the majority of subjects

A section of the interview schedule was designed for gathering information relating to the frustration experienced by subjects. Subjects were asked:

“While you were in hospital did you feel frustrated by anything?
If so what?”

Subjects' responses to this question were categorised into 4 types. The table overleaf details the type of responses given by subjects.

TABLE 3 EXAMPLES OF FRUSTRATION REPORTED BY SUBJECTS

TYPE OF RESPONSES GIVEN	NO OF SUBJECTS RESPONDING IN EACH WAY
Nothing frustrated me	8
Being unable to do things frustrated me	16
Lack of progress frustrated me	4
Length of time spent in hospital frustrated me	0

It can be seen from table 3 above that the majority of subjects responded by reporting that being unable to do things was a source of frustration for them. Subjects reported that they were now unable to do many of the things which previously they would have done without a second thought.

Subjects did not report experiencing feelings of frustration associated with the length of time they had spent waiting to commence rehabilitation. It is therefore not possible to support this hypothesis on the basis of the result obtained.

4.4 STATISTICAL ANALYSIS OF DATA RELATING TO RESEARCH QUESTIONS

4.4.1 HYPOTHESES RELATING TO SOCIAL SUPPORT

A) *It is predicted that a positive correlation existed between the individual's level of social support and the progress they make during the time spent in rehabilitation, as reported by Kulik & Mahler (1989).*

The results of this analysis reveal that it is not possible to support this hypothesis.

TABLE 4 THE ASSOCIATION BETWEEN REPORTED LEVELS OF SOCIAL SUPPORT AND PROGRESS MADE DURING REHABILITATION

	Spearman Correlation Coefficient	Number of Subjects	Level of Significance (1 tailed)
Social Support and Rehab Progress	-.293	28	.05 [Sig]

The results in table 4 indicate that significant inverse relationship was found to exist between subjects' reported levels of social support and the progress made by subjects during rehabilitation ($r = -.293$ $p < .05$). It is unclear why a negative association has been found, a possible explanation for this finding is due to the restricted scales upon which the two variables were measured, both being comprised of ranking scales.

Given that a negative correlation was found it is therefore not possible to support the hypothesis this case.

B) Those patients who have low levels of social support will score more highly on the HADS - Anxiety Scale than those patients who have higher levels of social support, as reported by Wenger (1996 & 1997).

On the basis of these results it is not possible to support this hypothesis.

TABLE 5 THE ASSOCIATION BETWEEN PERCEIVED AND LEVELS OF SOCIAL SUPPORT
REPORTED LEVELS OF ANXIETY

	Spearman Correlation Coefficient	Number of Subjects	Level of Significance (1 tailed)
Social Support and Level of Anxiety	.399	28	.02

The results reported in table 5 show that a significant association was found to exist between subjects reported levels of anxiety and their perceived levels of social support ($r = .399$ $p < .05$). This suggests that as levels of social support increase subjects levels of anxiety also increase. The reason for this finding is unclear as it is contrary to the anticipated result.

The hypothesis can not be supported on the basis of these results.

C) *Those patients who have low levels of social support will score more highly on the HADS - Depression Scale than those patients who have higher levels of social support, as reported by Wenger (1997).*

It is not possible to support this hypothesis on the basis of the results obtained.

TABLE 6 THE ASSOCIATION BETWEEN PERCEIVED LEVELS OF SOCIAL SUPPORT AND REPORTED LEVELS OF DEPRESSION

	Spearman Correlation Coefficient	Number of Subjects	Level of Significance (1 tailed)
Social Support and Level of Depression	.622	28	.001

The results reported in table 6 show that a significant association was found to exist between subjects reported levels of depression and their perceived level of social support. The results show that the correlation is significant at the level $r=.622$ $p < .001$. This finding is similar to that shown in table 5; it suggests that as social support scores increase so do depression scores. This was not the predicted finding and therefore it is therefore not possible to support the hypothesis on the basis of these findings.

4.4.2 HYPOTHESES RELATING TO REPORTED LEVELS OF ANXIETY & DEPRESSION

A) Participants beginning rehabilitation who report using active coping styles will report lower initial levels of anxiety.

TABLE 7 CORRELATION BETWEEN ANXIETY AND ACTIVE COPING STYLES

	Pearson Correlation	N.	Significance (1 tailed)
Anxiety			
active coping	-.275	28	.05 [Sig]
planning	-.231	28	.118 [N.S]
seeking instrumental social support	.171	28	.192 [N.S]
seeking emotional social support	.163	28	.204 [N.S]
suppression of competing activities	.227	28	.123 [N.S]
positive reinterpretation	-.137	28	.244 [N.S]
restraint	.028	28	.445 [N.S]
acceptance	-.023	28	.454 [N.S]
focus on & venting emotions	.486	28	.01 [Sig]
denial	.048	28	.404 [N.S]
behavioural disengagement	-.105		.298 [N.S]

Table 7 reports the relationship between subjects' reported level of anxiety and the different active coping styles they employ. The only significant results that were found were a negative correlation between anxiety and active coping ($r = -.275$ $p < .05$), and between anxiety and the coping strategy "focus on and vent emotions" ($r = .486$ $p < .01$). All other results were found to be not significant. It is possible that this finding represents a spurious result, rather than a genuine finding. Given that 11

correlations were performed in succession on the basis of Binomial Theorem, three significant results are required in order to be confident of obtaining an effect that is not due to chance. Since this analysis has produced only two significant findings there is a 10% likelihood that these represent chance findings. It is therefore not possible to support the hypothesis on this occasion.

B) Participants beginning rehabilitation who report using active coping styles will report lower initial levels of depression.

The results presented in table 8 indicate that it is possible to support this hypothesis on the basis of the results obtained.

TABLE 8 CORRELATION BETWEEN DEPRESSION AND ACTIVE COPING STYLES

	Pearson Correlation	N.	Significance (1 tailed)
Depression			
active coping	-.658	28	.001 [Sig.]
planning	-.502	28	.001 [Sig.]
seeking instrumental social support	-.052	28	.397 [N.S]
seeking emotional social support	-.166	28	.200 [N.S]
suppression of competing activities	-.089	28	.326 [N.S]
positive reinterpretation	-.525	28	.001 [Sig.]
restraint	-.175	28	.186 [N.S]
acceptance	-.502	28	.001 [Sig.]
focus on & venting emotions	.382	28	.01 [Sig.]
denial	.461	28	.001 [Sig.]
behavioural disengagement	.563	28	.001 [Sig.]

Table 8 presents the results of the correlation between subjects' depression scores at the beginning of the rehabilitation period and their use of active coping styles. As reported in the table overleaf depression has been found to negatively correlate significantly with active coping ($r=-.658$), planning ($r=-.502$), positive reinterpretation ($r=-.525$) and acceptance ($r=-.502$), at the level $p<.001$. Depression was found to positively correlate with denial ($r=.461$), and behavioural disengagement ($r=.563$) at the level $p<.001$, and with focusing on venting emotions ($r=.382$ $p<.01$).

On the basis of these results it is possible to support the hypothesis.

C) It is anticipated that active coping styles will be positively correlated with a reduction in reported levels of anxiety and depression in participants (Aldwin & Revenson 1987).

On the basis of the results obtained it is not possible to support this hypothesis.

TABLE 9 CORRELATION OF THE DIFFERENCE BETWEEN ANXIETY SCORES
(AT TIME 1 & 2) AND ACTIVE COPING STYLES

	Pearson Correlation	N	Significance (1 tailed)
Anxiety			
active coping	.029	26	.444 [N.S]
planning	.038	26	.428 [N.S]
positive reinterpretation	.025	26	.452 [N.S]
acceptance	.280	26	.05 [Sig.]
denial	-.094	26	.323 [N.S]
behavioural disengagement	-.161	26	.216 [N.S]

The results reported in table 9 show that only one significant relationship was found to exist between i) the difference in subjects' anxiety levels at the beginning of rehabilitation and 4 weeks later, and ii) their use of active coping strategies. The sub-scales of denial and behavioural disengagement were included in this comparison because it was believed that they represented two coping styles that were the antithesis of active coping. Acceptance was the only coping strategy found to correlate significantly with the difference in subjects anxiety levels ($r=.280$ $p<.05$).

However, no association was found with these coping styles and subjects reported levels of anxiety. Therefore on this occasion it is not possible to the hypothesis.

TABLE 10 CORRELATION OF THE DIFFERENCE BETWEEN DEPRESSION SCORES
(AT TIME 1 &2) AND ACTIVE COPING STYLES

	Pearson Correlation	N	Significance (1 tailed)
Depression			
active coping	-.498	26	.005 [Sig.]
planning	-.366	26	.01 [Sig.]
positive reinterpretation	-.307	26	.05 [Sig.]
acceptance	-.168	26	.207 [N.S]
denial	.189	26	.177 [N.S]
behavioural disengagement	.421	26	.01 [Sig.]

The results in table 10 show that some of the active coping styles (active coping $r=-.498$ $p<.005$; planning $r=-.366$ $p<.01$; and positive reinterpretation $r=-.307$ $p<.05$) are negatively correlated with depression. The sub-scales of denial and behavioural disengagement were included because it was believed that they represented the antithesis of problem-focused coping styles. The sub-scales of active coping, planning and positive reinterpretation show that a negative association exists

between the use of these active coping styles and the difference in subjects' depression scores. Active coping is significant at the level $p < .005$; planning is correlated at the level $p < .01$ and positive reinterpretation is correlated at the level $p < .05$. A negative association was also found to exist between the use of behavioural disengagement as a coping style and the change in depression scores, this association was significant at the $p < .01$.

The results indicate that it is possible to support the hypothesis on this occasion.

4.4.3 HYPOTHESES RELATING TO COPING STRATEGIES

A) It is predicted that participants' active coping styles will be positively correlated with progress made during physical rehabilitation.

Table 11 shows the correlations which were found to exist between specific active coping styles and the progress made by subjects during rehabilitation.

TABLE 11 CORRELATION BETWEEN SPECIFIC ACTIVE COPING STRATEGIES AND
PROGRESS MADE DURING REHABILITATION

	Pearson Correlation	N.	Significance (1 tailed)
Rehab. Progress			
active coping	.598	28	.001 [Sig.]
planning	.494	28	.001 [Sig.]
seeking instrumental social support	.472	28	.005 [Sig.]
positive reinterpretation	.345	28	.036 [N.S]
acceptance	.567	28	.001 [Sig.]

The results presented in table 11 above show the positive correlations which were found to exist between active coping styles and the progress made by subjects during rehabilitation. Active coping, planning, and acceptance have been found to correlate with rehabilitation progress at the level $p < .001$, (active $r = .598$, planning $r = .494$ acceptance $r = .567$). Seeking instrumental social support was also significant but at the $p < .005$ level ($r = .472$).

On the basis of the results obtained it is possible to support the hypothesis.

B) More active coping styles (as listed above) will be associated with more internal "recovery locus of control (RLOC).

The results presented in table 12 indicate that it is possible to support this hypothesis.

TABLE 12 CORRELATION BETWEEN SPECIFIC ACTIVE COPING STRATEGIES
AND RLOC

	Pearson Correlation	N.	Significance (1 tailed)
RLOC			
active coping	.617	28	.001 [Sig.]
planning	.665	28	.001 [Sig.]
seeking instrumental social support	.418	28	.01 [Sig.]
positive reinterpretation	.616	28	.001 [Sig.]
acceptance	.739	28	.001 [Sig.]

The results given in table 12 above show the positive correlations, which were found to exist between active coping styles and the RLOC of subjects. Active coping ($r = .617$), planning ($r = .665$), positive reinterpretation ($r = .616$) and acceptance ($r = .739$) have been found to correlate with rehabilitation progress at the level

$p < .001$. The correlation between RLOC and seeking instrumental social support was found to be statistically significant at the $p < .01$ level ($r = .418$).

The results presented in table 12 indicate that it is possible to support this hypothesis.

4.4.4 HYPOTHESES RELATING TO RECOVERY LOCUS OF CONTROL

A) Participants who report an internal "recovery locus of control" are expected to make better progress during their time in rehabilitation.

On the basis of the results presented in table 13 it is possible to support this hypothesis. A positive correlation was found to exist between internal recovery locus of control and physical rehabilitation progress.

TABLE 13 CORRELATION BETWEEN RECOVERY LOCUS OF CONTROL & PROGRESS
MADE IN REHABILITATION

	Pearson Correlation Coefficient	Number of Subjects	Level of Significance (1 tailed)
RLOC and Rehab Progress	.592	28	.001

The results shown in table 13 indicate that a positive correlation exists between subjects RLOC and the progress made by subjects during rehabilitation. The correlation is significant at the level $p < .001$ ($r = .592$). The higher the score on the RLOC scale the more internal an individual's recovery locus of control and this has been found to correlate with the nurses ratings of individual's progress during rehabilitation.

Based upon the results obtained, it is possible to support the hypothesis on this occasion.

B) A correlation is expected to exist between internal "recovery locus of control" and the levels of anxiety and depression reported by participants.

Based upon subjects RLOC and their anxiety scores the results obtained, indicate it is not possible to support this part of the hypothesis in this instance. Based upon subject RLOC and their depression scores the results obtained indicate it is possible to support this part of the hypothesis.

TABLE 14 CORRELATION BETWEEN RECOVERY LOCUS OF CONTROL & SELF-REPORTED ANXIETY SCORES

	Pearson Correlation Coefficient	Number of Subjects	Level of Significance (1 tailed)
RLOC and Level of Anxiety	-.196	28	.159 [N.S]

The results shown in Table 14 above indicate that the relationship between recovery locus of control and the self-reported levels of anxiety obtained from subjects is not significant at any level. This result suggests that in this study subjects' recovery locus of control and their anxiety levels are not associated, no association has been shown to exist between those subjects who employ an external recovery locus of control and their level of anxiety.

Based upon the results obtained, it is not possible to support this hypothesis in this instance.

TABLE 15 CORRELATION BETWEEN RECOVERY LOCUS OF CONTROL & SELF-
REPORTED DEPRESSION SCORES

	Pearson Correlation Coefficient	Number of Subjects	Level of Significance (1 tailed)
RLOC and Level of Depression	-.734	28	.001

A negative correlation was found to exist between internal recovery locus of control and depression, this association was significant at the $p < .001$ level. This suggests that a significant inverse association exists between the individual's recovery locus of control score and their score on the HAD Depression scale. Therefore as the recovery locus of control score increases (and the individual reports employing a more internal recovery locus of control), their score on the depression scale decreases.

Therefore based upon the results obtained it is possible to support the hypothesis.

4.4.5 HYPOTHESES RELATING TO PROGRESS MADE IN REHABILITATION

A) It is expected that a difference will be found to exist between the mean levels of anxiety reported by participants as they commence rehabilitation and 4 weeks later.

The results presented in table 16 indicate that it is possible to support this hypothesis on this occasion.

TABLE 16 DIFFERENCE IN MEAN ANXIETY SCORES

	t	df	Significance (1-tailed)
Anxiety	2.437	25	.01

Table 16 shows a significant difference was found to exist between subjects' anxiety scores at the initial assessment session and 4 weeks later. The results obtained were significant at the level ($t=2.437$ $df=25$ $p < .01$).

It is therefore possible to support the hypothesis.

B) It is expected that a difference will be found to exist between the mean levels of depression reported by participants as they commence rehabilitation and 4 weeks later.

The results presented in table 17 indicate that it is possible to support this hypothesis on this occasion.

TABLE 17 DIFFERENCE IN MEAN DEPRESSION SCORES

	t	df	Significance (1-tailed)
Depression	3.376	25	.001

Table 17 above shows a significant difference was found to exist between subjects mean depression scores at the initial assessment session and 4 weeks later. The results obtained were significant at the level ($t=3.376$ $df=25$ $p < .001$). It was predicted that the level of reported depression reported by subjects would fall between the beginning of rehabilitation and four weeks later.

On the basis of these results it is possible to support the hypothesis.

4.4.6 A COMPARISON OF SUBJECTS' HADS – ANXIETY SCORES AT TIME 1 & 2

The comparison of subjects' anxiety scores is of clinical relevance. It provides a breakdown of subjects' scores and indicates the clinical significance of the level of anxiety being experienced by subjects.

**TABLE 18 A COMPARISON OF SUBJECTS' HADS – ANXIETY SCORES
AT TIME 1 & 2**

Range of Scores	Scores at Time 1		Scores at Time 2	
	N	Percentage	N.	Percentage
Normal range (0-7)	16	57%	22	79%
Mild range (8-10)	5	18%	1	3 ½ %
Moderate range (11-14)	5	18%	3	11%
Severe range (15-21)	2	7%	0	0%
Missing Data			2	6 ½ %
total	28	100%	28	100%

The table above shows that at the time of the initial interview 16 subjects (57%) scored within the normal range of the anxiety scale of the HADS, this figure had increased to 22 subjects (79%) by the time of the second interview. The number of subjects scoring within the severe range had fallen between the first and second interviews from 2 subjects (7%) to 0 subjects (0%) respectively.

4.4.7 A COMPARISON OF SUBJECTS' HADS - DEPRESSION SCORES AT TIME 1 & 2

The comparison of subjects' depression scores is of clinical relevance. It provides a breakdown of subjects' scores and indicates the clinical significance of the level of depression being experienced by subjects.

**TABLE 19 A COMPARISON OF SUBJECTS' HADS - DEPRESSION SCORES
AT TIME 1 & 2**

Range of Scores	Scores at Time 1		Scores at Time 2	
	N	Percentage	N.	Percentage
Normal range (0-7)	14	50%	18	64%
Mild range (8-10)	2	7%	2	7%
Moderate range (11-14)	4	14%	1	4%
Severe range (15-21)	8	29%	5	18%
Missing Data			2	7%
total	28	100%		100%

The table above shows that at the time of the first interview 14 subjects (50%) scored within the normal range of the HADS depression scale. This figure had increased to 18 subjects (64%) by the time of the second interview. The number of subjects scoring within the severe range had fallen from 8 subjects (29%) to 5 subjects (18%) between the two interviews.

4.4.8 MULTIPLE REGRESSION ANALYSIS

From the above analyses, the variables that were found to correlate (at the 0.05 level of significance or below), with subjects' rehabilitation progress were selected for inclusion in multiple regression analysis. It was hoped that in doing so the variables that contribute to the dependent variable i.e. rehabilitation progress, would be highlighted as well as providing some idea of their relative contribution. The level of significance used in these analyses will be set at the $p < 0.1$ level, due to the conservative nature of the test.

4.4.6.1 REHABILITATION PROGRESS

The following variables were selected for use,

- ◆ dependent variable;- rehabilitation progress correlated with;
 - ◆ active coping
 - ◆ RLOC
 - ◆ acceptance
 - ◆ planning
 - ◆ seeking instrumental social support

The independent variables with the most statistical significance were entered first. Where the variables had equal levels of statistical significance the independent variables were entered into the multiple regression in order of decreasing r-values.

Table 20 overleaf reports on the findings of the analysis.

TABLE 20 MULTIPLE REGRESSION TABLE FOR VARIABLES CORRELATED WITH
SUBJECTS REHABILITATION PROGRESS

Dependent Variable	Variables in Equation	Multiple R	Adjusted R squared	Final Equation Beta	t	Sig.
REHAB PROGRESS	STEP1 ACTIVE	.598	.333	.566	2.402	.02
	STEP2 RLOC	.662	.393	.170	.742	.46
	STEP3 ACCEP/NC	.673	.385	.307	1.302	.20
	STEP4 PANNING	.683	.374	.460	-1.615	.12
	STEP5 INST.	.747	.457	.364	2.120	.04
	SOCIALSUPPORT					

The results of the multiple regression performed are shown in table 20 above. The regression was performed on the variables which were previously found to correlate significantly with rehabilitation progress. The results suggest that an 'active' coping style and coping by 'seeking instrumental social support' are the most significant predictors of progress in rehabilitation. The other variables, which on their own correlated with progress, were not found to be significant predictors of progress in relation to all other variables.

4.5 ANALYSIS OF UNANTICIPATED FINDINGS

The following findings were unanticipated because the study was not begun with any predictions about how subjects would respond to the questions, or the types of responses which would be received.

4.5.1 SUBJECTS' THOUGHTS ABOUT THE FUTURE

Participants were asked at the initial interview what thoughts they had about the future. The matrix below reports the type of responses that were made.

TABLE 21 RESPONSES GIVEN BY SUBJECTS TO THE QUESTION
"WHAT ARE YOUR THOUGHTS ABOUT THE FUTURE"

Subjects Thoughts about the Future:-		
Negative Thoughts	Neutral Thoughts	Positive Thoughts
<ul style="list-style-type: none"> ◆ Do not have any ◆ I have no future – I'm no longer needed 	<ul style="list-style-type: none"> ◆ I live from day-to-day ◆ If it's meant to be, it'll be ◆ I take each day as it comes 	<ul style="list-style-type: none"> ◆ Concentrating on getting fit ◆ I'm hopeful about the future ◆ I'm positive about it – I'll be 100 in three years ◆ I plan things to look forward to ◆ We have our 60th wedding anniversary in 2000 –I'm looking forward to that ◆ My granddaughter gets married in August & I plan to be there

Table 21 provides examples of the types of responses subjects gave when they were asked to think about the future. It is possible to divide the responses into 3 categories;

- 1 positive thoughts, both in terms of being optimistic and planning for the future
- 2 negative thoughts e.g. I have no future – I'm no longer needed
- 3 neutral thoughts e.g. If it's meant to be, it'll be

It can be seen that many of the examples given reveal that some subjects have a very positive attitude towards their future. This finding indicates that although reported levels of depressive symptoms were high many subjects retained a positive attitude towards the future. However, some subjects reported that their view of the future was limited, and their negative thoughts can be identified.

4.5.2 USE OF HUMOUR AS A COPING STRATEGY

The use of humour as a coping strategy is measured by the COPE sub-scale 15. At the time of the first assessment 15 subjects (54%) reported that they did not use humour as a means of coping with their situation, and this fell to 50% by the time of the second interview.

At both interviews, the majority of subjects (at least 50%) responded by saying that they did not use their situation to facilitate the use of humour as a coping strategy.

However, at both interviews 6 subjects (21%) scored above 8 (the mid-point) of the humour sub-scale, indicating that they did use humour as a coping strategy to a certain extent.

4.5.3 SUBJECTS' REPORTED ALCOHOL CONSUMPTION

The 14th sub-scale of the COPE assesses the use of alcohol as a coping strategy. It is worth reporting that none of the 28 subjects reported that they used alcohol as a means of coping. All 28 subjects (100%) responded in the same way to the 4 questions in the COPE that ask about alcohol consumption. The same results were obtained at both interviews.

5. DISCUSSION

In the introduction of this study it was argued that the greater the knowledge base relating to the ways in which older people cope with physical rehabilitation, the better the service which could be provided to that end. The more that is known about the types of psychological difficulties experienced by patients, the greater the potential of the professional to assist. If patients' psychological difficulties can be alleviated then they are in a better position to fully achieve their potential to progress during rehabilitation. If we are then in a position to alleviate psychological distress and promote optimal rehabilitation potentially during treatment, then the more efficient the service and the better the outcome for patients. This information would prove useful both theoretically and clinically, i.e. a growing body of literature upon which to base clinical practice and in terms of practice-based treatments. The concept of successful ageing is subscribed to by many and the more information we have pertaining to the experiences of the elderly, then the more can be done potentially to promote successful ageing in practice. The promotion of the concept of successful ageing encourages people to think positively about ageing and not to feel constrained in the activities in which they can participate. The concept of successful ageing has a Health Promotion aspect to it in terms of promoting old age positively, and encouraging people to aim for the best possible quality of life even with increasing years. Section 1.2.2 in the introduction outlined the contribution Clinical Psychology has to make in the care of older adults. From the findings of this study it is possible to argue a case for Clinical Psychology input to the (rehabilitation) Day Hospitals being a routine service provision. This study has identified aspects of coping strategies which are less likely to be associated with psychological problems (anxiety and depression), and those attitudes towards recovery which promote progress in rehabilitation have been identified. Given that a need for Clinical Psychology input has been identified in the Day Hospitals the matter becomes not only a service development issue but also a moral one, and morally a service ought to be provided. This issue will be discussed in section 5.4.1 to follow.

It is proposed to discuss the issue of methodological shortcomings of the study first, and from there a general discussion of results of the study will be presented. Following on from the general discussion will be specific discussion relating to the hypotheses and focusing on the findings relating to each hypothesis.

5.1 METHODOLOGICAL ISSUES

This study does not use a control group therefore it is not possible for any changes or differences to be measured against such a control group. It is the opinion of the researcher that there was no group which could act as a realistic control. The purpose of any control group would have been to control for the life event, experienced by the elderly subjects, which necessitated hospital admission, and a period of physical rehabilitation.

The subjects participating in this study were all over the age of 65, i.e. elderly. They had all been referred to the Day Hospital because they had suffered a stroke or fall which had rendered them in need of physical rehabilitation. As a result, a group of younger people attending rehabilitation would be coping with rehabilitation but without all the other considerable difficulties which accompany increasing years, e.g. social isolation, loss of mobility, etc. Similarly a group of older people attending a community social facility had been considered as a potential control group. However, elderly people attending a lunch group were not being required to deal with a major life event in the way the subjects were. Similarly, attendees of a community facility for those deemed to be experiencing difficulty with independent living and attending for indirect support such establishments have a fairly fixed client group, who are usually cognitively impaired. Therefore neither of these avenues were pursued. It was felt that change in status, and level of function independence was not comparable with coping with life following a stroke/fall. The life event was the situation with which the subject group were required to deal, rather than a change in status.

It is acknowledged that the results of this study have been obtained with a small sample size. This limitation of the study is apparent, and has resulted from the time constraints which exist when doing a study that is bound by the exigencies of the academic calendar. The small sample size may have adversely contributed to the findings of the study. As stated previously, in section 3.8.3, at least thirty subjects were required in order to have a power of .80, and twenty-eight subjects were recruited. It is therefore possible that a significant result may have been missed. The

only conclusions which can be drawn from the study are related to this client group; however, a larger sample size may have produced additional significant findings.

In addition to the methodological issues already highlighted, several areas warrant specific attention. It is important to note that the medication which some subjects may have been receiving was not controlled for. However, the medical staff / nurses did not report in the Nursing Assessment that any of the subjects were receiving pharmacological treatment for psychological symptoms, e.g. anxiolytics or anti-depressants. In addition it should be noted that any ailments from which the subjects suffered were not standardised in any way. The subjects represent a random sample of attendees at the Day Hospitals. The recruitment criteria for the Day Hospitals detail the types of referrals for physical rehabilitation that they will accept. The criteria states that priority be given to those patients who have had a stroke and/ or a fall.

The use of parametric statistics by psychologists in research is also a potential source of limitation in clinical research findings. The use of scale data in research ought in mathematical terms to be analysed using non-parametric analysis; however, the convention in psychological research is to treat scale data as though it were parametric, providing it satisfies the criteria for parametric analysis.

The final area, which merits some consideration, is that of the measures used in this study. The Hospital Anxiety and Depression Scale (HADS) was chosen for its reliability, its ease of administration and because there has been no clear precedent set in previous studies as to which measures to use. A variety of measures have been utilised in different studies: Zung- depression (Kivinen et al 1998; Sinyor et al 1986) Beck Depression, Beck Hopelessness (Sinyor et al 1986), STAXI (Butler et al 1996). However, attention should be given to the fact that some of the items in the scale tap into symptoms which subjects may experience as a result of their physical difficulties, rather than due to their reporting features of anxiety or depression. The HADS is a clinical instrument, which is used extensively by clinicians. However, it does not sensitively distinguish between the multi-faceted problems of patients.

The COPE (Carver et al 1989) was used to record the different coping strategies employed by subjects. However, the length of the instrument (comprised of 15 sub-scales each with 4 questions, i.e. 60 items for completion in total) proved to be difficult for many of the elderly subjects. The repetitious nature of some of the items especially within the humour, alcohol, and religion sub-scales resulted in some of the subjects replying that they had already responded to that item.

On reflection the COPE was perhaps not the best instrument for use with this client group primarily due to its length, and over inclusive nature which made it feel repetitive to subject

It is important to note the limitations of the use of multiple regression analysis techniques as used in this study. Primarily the number of subjects in the project is extremely small for regression analysis. Furthermore in a step wise linear regression the first variable entered is given the opportunity to account for most of the variance. All subsequent independent variables are left then to account for the remainder of the variance between them, and when the sample size is small, the findings are effected.

It is a fact that coping strategy impacts on progress in recovery, and that RLOC does likewise, but it is of interest clinically to have greater knowledge of the extent to which each individual coping strategy accounts for the progress made by patients. So it was decided to conduct the multiple regression analysis despite the low numbers of subjects. However, due to the restricted sample numbers it was decided not to run a multiple regression analysis on depression and coping style due to the large numbers of independent variables which had been found to correlate with depression.

The outcome of the multiple regression analysis can only be applied to this group of subjects with confidence. It is likely that a sample bound result has been obtained, which is only of relevance to this specific group of patients.

The researcher is aware that caution is required when interpreting the statistically significant findings of multiple correlational analyses. For example in section 4.4.2 anxiety and depression are correlated with the coping styles assessed by the COPE, when conducting so many correlations at once the likelihood of discovering a chance finding is high.

Despite the limitations of the current study there are still interesting findings which can be reported.

5.2 SUMMARY OF MAIN FINDINGS

The limitations of the study have been discussed, and despite these, several interesting findings have been obtained. It had been anticipated that time spent in hospital awaiting allocation to a rehabilitation service would feature as a reported source of frustration for subjects. However, when asked about the sources of frustration that they had experienced while in hospital none of the participants reported that the waiting time for commencement in rehabilitation had been frustrating for them. It is possible to speculate as to the possible reasons for this finding.

It is possible that subjects did not report their waiting experience as a source of frustration because they were not directly asked that question. Perhaps if subjects had been asked, "To what extent did you feel frustrated by the amount of time you spent waiting in hospital for rehabilitation?" then an entirely different response set may have been obtained. The reason they were not asked the question in that way was because the research did not want to prompt the subjects to respond in any particular way. It was also the opinion of the researcher that if subjects had felt strongly about the experience of waiting and the feelings of frustration evoked by the situation they would have reported their feelings. Alternatively it is possible that subjects did not experience the time spent in hospital awaiting allocation to a rehabilitation service as a source of frustration to them. The memo received from the Medical Director (Appendix 1) explains that concern had been expressed about the effect waiting was having upon patients: the 'bed-blockers'. This study has found that patients who are no longer waiting in hospital for services do not subsequently report that the experience had frustrated them.

In this study subjects reported experiencing depressive symptoms to a greater extent than they reported experiencing symptoms of anxiety. As a result this study has found that depression correlates with more factors than does anxiety. Potentially if this trait remains unaddressed then people could go on to experience feelings of hopelessness. Much of the work relating to depression cites the existence of hopelessness as a central feature in the depressive illness (Beck, Weissman, Lester,

Trexler 1974a; Beck, Rush, Shaw, Emery 1979). Therefore the level of depression reported among subjects indicates that they are likely also to be experiencing feelings of hopelessness. However, Greene (1989) disputes the contention that hopelessness only presents as a core symptom of depression. She contends that it is possible for people to present as hopeless, both in the presence and absence of depression, and as non-hopeless and depressed. Therefore based on the work of Greene it is possible that subjects report high levels of depression without them experiencing feelings of hopelessness also.

This finding potentially has two clinical implications:

- 1) those patients who reported experiencing symptoms of depression go on to develop feelings of hopelessness
- 2) even those who did not report depressive symptoms, are experiencing feelings of hopelessness, and as a consequence of which they are unlikely to achieve their potential progress in rehabilitation.

Whichever scenario transpires the findings of this study indicate that many patients are depressed. This, combined with the work of Greene, suggests that patients' feelings of hopelessness ought to be assessed routinely in the Day Hospitals.

A significant relationship was found to exist between Recovery Locus of Control (RLOC) and subjects reported use of active coping strategies. It was found that the use of active coping strategies: active; planning; positive reinterpretation and acceptance correlate significantly with internal RLOC.

A significant difference was found in subjects reported levels of anxiety and depression at the beginning of rehabilitation and 4 weeks into the rehabilitation programme which lasts on average 10-12 weeks.

The results of the multiple regression between coping strategy and subjects' rehabilitation progress suggests that for this group of patients the coping strategies which are greatest predictors of rehabilitation progress were 'active' coping and

coping by 'seeking instrumental social support'. The clinical implications of this finding are that the more rehabilitation centres can promote these coping attitudes within their patients the greater the progress the patients will make. By addressing patients' feelings of depression it would be possible to increase their attitudes towards adopting active coping styles, and thereby increase the progress achieved by patients. 'Seeking instrumental social support' was also found to be a predictor of rehabilitation progress. Clinically this suggests that just by attending the Day Hospital for rehabilitation patients are in a position to seek this type of support from staff. Staff ought to be made aware of the positive effect this type of support has for patients, in an attempt to prevent those patients who do seek support from being re-labelled as attention-seeking, or demanding.

5.3 DISCUSSION OF HYPOTHESES

In this section the findings related to each of the hypotheses will be discussed in turn, and an explanation for each will be offered. Consideration will also be given to the implications of the findings.

5.3.1 ISSUES ASSOCIATED WITH FRUSTRATION

It was hypothesised that subjects would report experiencing feelings of frustration associated with the length of time they had spent as in-patients awaiting discharge from hospital. As previously discussed patients are often detained in hospital until a rehabilitation place becomes available for them at one of the Day Hospitals. It had been anticipated that subjects would have expressed frustration at this delay. However, from the results of this study this does not appear to be the case. In fact, when subjects were asked about the frustration they had experienced, not one of them reported the wait in hospital as contributing to this emotion. Given the current professional, public and media interest in the issue of hospital waiting lists and waiting times, it would appear that the time is right to investigate this issue further.

The emotional experience of frustration does not appear to be a frequently researched topic; hence it was not possible to locate an assessment measure designed for this purpose. In this study frustration was assessed by means of the structured interview, and it is possible that the questions asked were not those necessary to elicit information about subjects' feelings of frustration.

It is possible to speculate and question the extent to which older people refer to their feelings. The language, and the words older people use to express emotions differs from current parlance, and as a result they perhaps are less likely to vocalise their feelings. Older people tend to be reluctant, or have difficulty openly discussing their feelings. An alternative explanation is that the group of subject did not wish to complain about the service they had received, and consequently they preferred to be seen to say the right things.

A final explanation of this finding is that the subjects regarded the lack of their own abilities as being of greater significance and a greater source of frustration than anything else. The issue of self-agency was of greater priority than the time spent waiting. This finding ties in with the idea that active coping strategies promote rehabilitation progress. The fact that subjects want to be able to do things indicates that they are motivated to attempt to make progress.

Regardless of feelings of frustration which may be attributed to an inability to be as independent as previously possible, it is likely that patients will worry about their situation. Patients have to contend with changes in their own abilities, and how they are to deal with these in future, as a result many will worry about their health amongst other things. The implications of this on the progress they make in rehabilitation are not to be underestimated.

Although the concept of worry was not investigated as an entity in its own right by this study, it is a factor which is relevant to this population. The aim of the study was to investigate how patients cope with rehabilitation, and as part of this frustration was investigated. As a point of discussion it is possible to make an association between frustration, and worry as a consequence of it. It has been reported that there are increasing numbers of patients being referred to Clinical Psychology Departments as a result of experiencing 'excessive worry'. Lee-Jones (1996) investigated worry among a sample of older adults and the role played by coping strategies in maintenance of this worry. Several authors (Borkovec 1985; O'Neill 1985; Wisocki 1988) have proposed that a relationship exists between worry and the coping strategies used by the individuals. It is suggested that several factors substantiate the presence of this relationship 1) the role of coping strategies as mediators of the effects of stress. Secondly, worry is generally considered to be composed of cognitions relating to a perceived threat (rather than an actual one). It is possible to argue that since the source of threat is not present then the adoption of appropriate coping strategies may lead to the elimination of that perceived threat and therefore the worry. Studies have demonstrated that a high correlation exists between worry and anxiety (Borkovec 1983; O'Neill 1985) it has been argued that worry is

essentially the same as anxiety, but a cognitive presentation of anxiety. It is therefore possible that the role of coping strategies plays a role in the process of worry. Lee-Jones (1996) found that worry was an experience, which her non-clinical sample reported to be a low frequency experience. In addition she found that both clinical and non-clinical groups tended to focus their worries on health-related issues.

5.3.2 SOCIAL SUPPORT

It was hypothesised in this study that, in keeping with findings of Wenger (1996 & 1997), the perceived levels of social support which subjects reported receiving would be correlated with their anxiety and depression scores as assessed by the Hospital Anxiety and Depression Scales.

It is important to distinguish between the amount of social support people receive and the perceived quality of the support received. Similarly there is a distinction between social support and social contact. The quality of the social support received is as important, if not more important than the quantity of support. This study fails to take account of the perceived quality of the support that subjects were receiving. Subjects were asked objectively about the amount of social support they received weekly, the amount varied from none, 1-4 hours, 4-8 hours, and in excess of 8 hours. Subjects were not asked to subjectively rate the quality of their social support. It is possible for someone living in residential care to report that they have more than 8 hours of social support weekly, but they may not derive a great deal of benefit from it. In this case the person has social contact but perhaps not social support. It is often sufficient to know that someone is there if they are needed.

From the results obtained in this study no significant association was found to exist between subjects' reported level of social support and their level of anxiety. A negative association was found between social support and progress made in rehabilitation and it is possible that this finding was due to the rather crude measures used. It was felt that this finding did not fit with any theoretical context, and consequently no importance is attached to this finding. Depression was found to correlate significantly with social support, suggesting that as depression increases

social support also increases. This may be due to the individual's social network responding when they detect that the individual's mood is dropping: they increase contact. Alternatively, this finding may be again due to the limitations of the measure of social support that was used in the study.

Wenger (1997) puts forward 5 different types of social network, and explains that membership of different networks affords the individual different support, and is also accompanied by different risks. Wenger's 5 networks are

- 1) locally integrated
- 2) wider-community focused support network
- 3) local self-contained support network
- 4) local family dependant support network
- 5) private restricted support network.

Each network is characterised by different patterns of contact with family, friends, neighbours, and community involvement. An adequate level of social support reduces the risk of social isolation, loneliness, and depression (Wenger 1997). However, the nature of the social network is also important in determining what will happen in an emergency or during a period of crisis, i.e. different people (different networks) will respond differently.

Although in the structured interview information relating to the subjects' perceived quality of the social support was obtained, the responses given in the checklist matrix in section 4.3.1 offer some information on this. In response to the question "What three things do you feel are currently helping you to cope?". The responses reveal the importance of social networks. Subjects responded with examples of both family dependant and wider community networks.

It had been anticipated that an inverse association would exist between subjects level of social support and their reported level of depression. However, a positive association was found and this finding was not considered to be a clinically

significant result. Subjects were believed to clinically respond to increased social contact, but this would be expected to serve to make them less depressed. It is therefore difficult to explain this result.

Kulik & Mahler (1989) found in their study that individuals with high levels of naturally occurring social support not only recovered more quickly, but also took less pain control medication than those with low levels of social support. This current study has been unable to replicate these findings. Kulik and Mahler's study also reports that the perceived quality of the social support was a relatively insignificant factor. They report that unmarried patients' recovery was generally slower than married patients with high levels of support, but it was faster than married patients with low support. Given that 79% of the sample group in this study were either widowed or single this perhaps offers some explanation as to the lack of a positive association between social support and rehabilitation progress in this study.

5.3.3 SUBJECTS' LEVELS OF REPORTED ANXIETY & DEPRESSION

The fact that anxiety was found to significantly decline between the beginning of rehabilitation and four weeks later may be related to the fact that initially people are in a new and unfamiliar environment, but after four weeks they feel more familiar in the environment. Hence, perhaps the decrease in anxiety scores.

Anxiety was found to have little association with coping strategies. The two relationships, which have been identified, are between 'active coping' and anxiety, and 'focusing on and venting of emotions' and anxiety. A positive association was found between 'active coping' and anxiety which suggests that the subjects who engaged in higher levels of active coping reported fewer anxiety symptoms. The association between anxiety and 'focusing on and venting emotions' was also positive which suggests that those subjects who reported experiencing more symptoms of anxiety also reported that they coped with their situation by focusing on their emotions and venting their emotions. The use of such a coping strategy by people who are anxious is in keeping.

Both positive and negative associations were found to exist between depression and several coping strategies. The coping strategies 'active coping', 'planning', 'positive reinterpretation', and 'acceptance' were found to have a negative association with depression. This finding is in keeping with the notion that depressed people are less likely to be motivated or engage in active coping styles. Positive associations were found between depression and the coping strategies 'focusing on and venting emotions', 'denial', and 'behavioural disengagement'. The use of such coping strategies by people who are depressed is in keeping with the characteristics of feeling depressed i.e. when feeling depressed people are likely to engage in less helpful coping responses. Carver et al (1989) reported that active coping and planning were found to be inversely correlated with denial and behavioural disengagement.

Sinyor et al (1986) conducted a study which investigated post-stroke depression and its association with coping strategies and rehabilitation outcome. They postulated that depressed patients would report coping styles associated with depression (less active types of coping) and these characteristics would lead to lower levels of participation in rehabilitation. The findings of this current study support the findings of Sinyor et al (1986). Active coping strategies have been found to promote participation in the rehabilitation process. Coping strategies associated with depression appear to involve less behavioural engagement, less acceptance of the situation, even to the point of engaging in denial of the situation. It is likely that these characteristics and mental attitudes will adversely interfere in the rehabilitation process, and may have long-term implications for the individual's recovery.

5.3.4 COPING STRATEGIES

Active coping has been identified by Carver et al (1989) to include the following adaptive coping strategies: active coping; planning; suppression of competing ideas; restraint; positive reinterpretation and growth; seeking social support both instrumental and emotion; and acceptance. Carver et al (1989) believe the adaptive nature of the following coping strategies to be more questionable: denial; behavioural disengagement; mental disengagement; focus on and venting of emotions; and alcohol.

In section 4.4.3 it is predicted that the use of active coping strategies will be positively correlated with subjects' progress during rehabilitation. For the purpose of this correlation all the coping strategies which are considered by Carver to be more adaptive and active were correlated with rehabilitation progress. The results indicate that a positive association exists. Active coping, planning, positive reinterpretation and growth, seeking instrumental social support and acceptance were found to correlate significantly with rehabilitation progress. This finding suggests that as individuals engage in more adaptive coping styles they are then in a position to achieve best progress in rehabilitation. Individuals who employ active coping styles are more likely to be active themselves thereby putting the rehabilitation training into practice.

Section 4.4.3 also reports on the association between the use of active coping strategies and the use of internal RLOC. Active coping, planning, positive reinterpretation and growth, seeking instrumental social support and acceptance were also found to significantly correlate with RLOC. This suggests that as subjects' RLOC increased, and their locus of control became more internal their use of active coping strategies increased also. However no causal relationships can be inferred from this, or any of these findings, and it is not possible to speculate as to which trait developed first, i.e. does an internal recovery locus of control create active coping tendencies within people, or vice versa.

Despite the length, and at times repetitive nature of the COPE, it has none the less demonstrated that people do not subscribe to just one style of coping. The results of the hypotheses investigating the use of different coping styles (section 4.4.3) demonstrate that people employ a wide variety of strategies.

It is apparent that the coping styles subjects reported using are varied, which supports Carver et al (1989) contention that people employ of different dimensions of coping. Although some of the different coping styles might appear contradictory in nature, regardless it is the case that in the process of coping with a perceived threat people use a range of strategies.

5.3.5 RECOVERY LOCUS OF CONTROL

The RLOC scale (Partridge & Johnston 1989) was used to assess subjects' beliefs about the extent to which they believe their recovery is outwith (external) or within (internal) their control. Internal RLOC was found to have a significant inverse association with depression. This finding is in keeping with the idea that those people who perceive themselves to have greater control over their recovery are also less likely to be depressed.

This finding is supported by the associations which were found between active coping styles and internal RLOC. It was found that active coping, planning, seeking instrumental emotional social support, positive reinterpretation, and acceptance were all significantly correlated with internal RLOC. This also suggests that those people who are most active in their coping strategy, have a more internal RLOC, and are less likely to be depressed.

No significant association was found between internal RLOC and anxiety.

Researchers have demonstrated that patients with a greater internal RLOC tend to make better progress in their recovery (Partridge & Johnston 1989). This finding has been replicated in this current study. A significant positive correlation, was found between internal RLOC and progress made in rehabilitation. Potentially a feedback

loop could exist in this situation, and as the person sees they are making progress, they consequently believe they can exert more control over their recovery, and so they progress further. In both the current study and Partridge & Johnson's, the subjects studied were returning to the Day Hospital / physiotherapy department and it may be, that at this point in patients' recovery is an important time to promote internal RLOC beliefs within these patients. The patients have survived the initial trauma and some time has elapsed since the trauma: patients are perhaps more able to alter their RLOC at this time.

Carver et al (1989) reported that people who engage in active, and more adaptive coping strategies tend to be those who report having a more internal locus of control. People with an external locus of control tend to report engaging in less active strategies.

Evidence exists to suggest that it is a realistic aim of rehabilitation services to help patients increase the level of perceived control they have over their recovery. Johnston et al (1992) report that, by means of an explanatory information sheet designed to increase perceived control. They found that the group who had received the letter had on average significantly higher levels of perceived control and was more satisfied than were the control group. Johnston et al (1992) suggest that this type of information given to patients prior to rehabilitation might lead to both better and faster progress being made in rehabilitation. The caveat to these suggestions is that these predictions require further investigation.

5.3.6 PROGRESS MADE DURING REHABILITATION

It was anticipated that there would be a significant difference in anxiety scores between the commencement of rehabilitation and 4 weeks into the rehabilitation programme. Subjects' anxiety scores were found to decrease significantly.

It was anticipated that a significant difference in depression scores between the commencement of rehabilitation and 4 weeks into the rehabilitation programme. Subjects' depression scores were found to decrease significantly.

These findings suggest that subjects experience a benefit from attending the Day Hospital, the reason for the fall in these scores could be due to the increased levels of social support they are experiencing, or due to the progress they themselves feel they are making.

An important distinction exists between the outcome of an intervention and the progress made during the intervention especially in rehabilitation (Johnston 1984). In this study it has only been possible to assess the progress made by patients during the time they spent in rehabilitation. However, it is possible that at least some of these patients will continue to make progress even after they have been discharged from the Day Hospital, therefore in this study it is not possible to comment on the outcome of the rehabilitation treatment the subjects received. A future investigation would be required for that purpose.

However, the aim of this investigation was to identify those coping strategies, which promote a positive rehabilitation outcome, and minimise the psychological distress experienced by patients. Consequently those coping strategies which are positively associated with internal RLOC are also important. The more psychologists know about the factors, which influence a positive rehabilitation outcome, the better their position to therapeutically manipulate patients attitudes and behaviours to enable them to achieve the best outcome. It is possible that following discharge from the Day Hospital long-term progress will be maintained if early intervention has occurred.

This study has found that positive rehabilitation outcome can be predicted by patients use of active coping strategies and by seeking instrumental social support. Clinically these strategies ought to be promoted in-patients, and factors, which may inhibit the implementation of these attitudes, should be addressed. Although RLOC, the use of planning as a coping strategy and acceptance of ones' situation were found to correlate with subjects' rehabilitation progress, they were not found to be significant predictors of rehabilitation progress.

5.4 GENERAL DISCUSSION

The finding that subject did not report experiencing feelings of frustration is considered to be of specific interest.

Little is know about older people's attitudes to waiting. Published literature offers nothing in the way of answering this question. None the less it is possible to speculate without much difficulty that they reflect society's view of older people as less valued members of the community and therefore more tolerant when waiting. Alternatively, people born and raised prior to the creation of the National Health Service are more likely to be grateful for whatever 'free' care they receive (the average subject was 30 when the NHS came into being).

Subjects were asked what life experiences they believed had helped them to cope with their current situation. The responses obtained did not reveal a wide response set. The reason this question had been asked was to investigate the extent to which subjects would report lifetime experiences, which are largely unique to their peer group as being influential. It had been anticipated that subjects would report some wartime experiences in this context. However, they did not refer to wartime experiences nor did they make mention of the Depression of the 1930's or the General Strike. This was perhaps due to the dissimilar nature of the two experiences. Alternatively it is possible that older people may, like younger people, regard each experience as different and unique. It is however perhaps more likely that experiences are regarded as dissimilar, and therefore people do not make links and

associations between them. A large part of therapeutic intervention is aimed at assisting people to make such links between experiences and thereby affording them the opportunity to draw upon previous experiences. Solution-orientated therapy is an example of such an intervention.

The concept of worry in relation to this client group is an unknown quantity, but this group of subjects, and this client group in general, are at risk of health related worry in particular. The extent to which worry is a factor in the physical rehabilitation of older adults may be worthy of further investigation.

The literature relating to life events has grown dramatically over the last two decades. However, little attention has been paid to the effect of life events upon the elderly. This is in part due to the belief that later life is less stressful. In a recent study Frischer Ford & Taylor (1991) have investigated life events of older people and their psychological well-being. They reported that those subjects in a poor psychological state were more likely to report serious non-health related events than health related ones. Similarly those with low levels of social interaction had more serious reactions to life events in the short-term, than those individuals with higher levels of interaction. These effects only existed in the short-term and no long-term effects were found. Frischer et al (1991) concluded that life events did not cause significant psychological distress to elderly people when considered within the context of the wider community. It is therefore likely that any psychological distress caused by the life event, which precipitated attendance at the Day Hospital, is not likely to have an adverse effect upon the participants of this study in the longer-term.

5.4.1 THE NEED FOR SERVICE PROVISION

In the introduction, (section 1.2) the potential contribution to be made by Clinical Psychologists working with older clients was explained. The variety of roles and types of work undertaken by a psychologist working with this client group are considerable. A previous study by Neilson (1997 unpublished) discusses the issue of service provision for older people and compared the types of referrals received by different services for older people.

The literature, which pertains to worry in older adults, suggests that it is experienced by many of the population. On the basis of the results of the studies by Borkovec (1985), Lee-Jones (1996), O'Neill, (1985), and Wisocki (1988), it is possible to question the extent to which worry played a part in the presentation of subjects in this current study. Given that older people are prone to worry about health related issues (Lee-Jones 1996) it is likely that many of the subjects in this sample were worrying about their situation. However, it does not appear as though any direct action was taken to address the subjects health concerns. Assessing patients' worry-thoughts and offering an treatment intervention could facilitate the progress they make in rehabilitation.

It would seem that this is a possible area for service development within the remit of psychologists working with older adults. In this study the presence of psychological distress has been identified among the subject group, and the inclusion of a Clinical Psychologist within the multi-disciplinary Day Hospital team is to be recommended. My study reports the need for developments in the rehabilitation services. A great deal is currently expected of the Day Hospital staff in terms of identifying, assessing and referring on to a Clinical Psychology Department, those patients identified as having psychological difficulties. The staff are therefore required to make clinical decisions that they not trained to make.

Although patient progress is monitored during the time they spend in rehabilitation little is known about the long-term progress made by service users. There is no period of follow-up for patients after they have been discharged from the Day

Hospital. It would be interesting to know whether patients continue to progress, or whether progress reaches a plateau, or they may even deteriorate once discharged. In the same way as 'booster sessions' have been recommended in behaviour therapy treatments (Whisman 1990) it is possible that 'booster sessions' would benefit rehab patients. The area of patient follow-up is one of further potential service development, a service could be offered to follow-up patients for a one-off session three and six months post discharge. The efficacy of such a service development could be evaluated in future research projects.

Despite the limitations of this study it is still possible to make significant recommendations for service development on the basis of it. The issue remains, 'Should greater provision of Clinical Psychology expertise be provided within the rehabilitation centre as part of standard Health Care provision?'. With reference to these subjects it would appear that the results of the study suggest that some would have benefited from seeing a psychologist. While most of them made favourable progress during their rehabilitation programme, consideration must be given to those who did not, and what could have been done to promote their progress. It is possible to speculate about why subjects' reported levels of anxiety and depression fell between the four-week period. This finding was perhaps due to the rehabilitation input itself, but it may have been a placebo effect of the increased human contact and interaction experienced by many of the subjects: a change of scene and a day out.

Inevitably further research in this area would serve to substantiate and replicate or repudiate the findings of this study. It is the opinion of the researcher that on the basis of this study it has been demonstrated that the development of a service with integrated psychology input to the rehabilitation centres would be beneficial to all the patients.

5.4.2 INTERESTING RESPONSES OBTAINED ON THE COPE

Section 4.5.2 reports that none of the 28 subjects reported that alcohol formed a part of their coping strategy. It is possible to speculate as to the reason for this finding.

Perhaps it represents a genuine response and the finding is accurate. However it is possible that subjects chose not to reveal their use of alcohol as a way of coping because they regarded it to be unacceptable, or maladaptive. Furthermore when considering that subjects were interviewed in Health Service premises perhaps they felt admission of such behaviours to be stigmatising, and to be regarded unfavourably among health care workers.

Subjects frequently reported the use of religion as a coping strategy. Is this more reflective of a generational trend or a more philosophical trait as people become progressively older? The frequent reported use of religion as a coping style could be due to the generation to which the subjects belong. People born between 1900 and 1930 as the subjects were, would generally have been raised in a religious environment and church-going homes. However, the responses obtained are perhaps due to an phenomena of ageing, and it is possible that with increasing age people think of religion more and its association with the after-life. It would be interesting to know how a younger cohort of subjects would respond. A group of people who are now in their 30s/40s and were born in the 1950s/60s, and have been reared in a different era with different (religious) values.

Oxman et al (1995) reported on the lack of religious strength and comfort as risk factors for death following cardiac surgery among the elderly. In the study Oxman et al investigated the extent to which lack of religious awareness correlated with mortality. They found that not only did religion offer people an extended social network, but people also gained strength and comfort from religion. The literature suggests that religious beliefs serve both the social and existential needs of the elderly (Koenning, George & Siegler 1988). In a study of religiosity and death anxiety Thorson & Powell (1990) reported that older people who are highly religious also experience less death related anxiety. Therefore the responses of many of the subjects in this study suggests that they too gain strength from religion, the long-term benefits of such beliefs and coping strategy to these individuals is unknown.

6. CONCLUSIONS AND IDEAS FOR FUTURE RESEARCH

6.1 CONCLUSIONS

Despite the limitations of this study, it is possible to draw several conclusions from it. The main conclusion relates to the issue of service development. It has been highlighted that the absence of a Clinical Psychologist from the Day Hospital multi-disciplinary team means that patients do not receive a psychological assessment routinely. It is therefore only those patients identified by staff as having psychological difficulties who receive input.

This study has demonstrated that the outcome of rehabilitation relies a great deal on psychological factors. Long-term outcome of rehabilitation is equally dependent upon the individual's psychological well-being. In order to promote a positive outcome it is necessary to address certain patient characteristics; behaviour, cognitive appraisal of their situation, cognitions about the future, belief in their own recovery potential and the coping style which they employ. All of these traits are fundamental to achieving optimal progress, and if a patient has a maladaptive attitude in any of these areas it is likely to undermine the aims of rehabilitation. It can be argued from this study that psychologists' involvement in the rehabilitation process would allow for the therapeutic manipulation of less beneficial attitudes. Such an intervention would potentially enable more patients to achieve greater progress during their time in rehabilitation.

The factors, which have been identified by this study as contributing to positive rehabilitation and outcome are 'active' coping style, coping by 'seeking instrumental social support'.

6.2 ISSUES FOR FUTURE RESEARCH

If this study could be replicated, taking into account the methodological problems, and conducted over a considerably longer period of time, it would then be possible to use time series analysis when analysing the data. Such an approach would help to answer some of the unanswered questions, which this study has raised.

Another potential area of worthwhile future research and investigation would be to conduct a comparative study investigating the differences in coping as displayed by in-patients in rehabilitation wards, and those of outpatients attending the Day Hospitals. Comparisons similar to those made in this study could be examined. The progress outcome of the in-patients could be monitored throughout their time in hospital and during their attendance at the Day Hospital. Such monitoring would yield information over a period of several months, which would aid the measurement of changes within people more readily.

The issue of bed blocking and the effects of waiting lists on the elderly remains to be investigated. Little still is known about the effect hospital waiting lists have on the psychological well being of older people, although waiting for services is a regular occurrence. A study designed to measure the effect of waiting on people's mental health would offer a great insight into a currently unknown area.

There is a research question to be answered pertaining to the role played by worry in the rehabilitation process of older adults. It is possible that those patients who worry greatly about their situation make less progress than those who employ problem focused, or active coping strategies. It would be of considerable clinical relevance to be aware of those patients who were at risk of not making the progress expected of them because they were 'worriers'.

A relevant question to answer in future research relates to the role of hope and patients' mental attitudes towards their progress, and their expectations of their own progress. The impact of hope / hopelessness on patients' rehabilitation progress, and

the relationship between hopelessness and mortality would yield interesting information.

An interesting area for potential future research is related to the issue of a follow-up session for discharged patients. Older patients who have received physical rehabilitation and who have subsequently been discharged would offer interesting information for a study to investigate the effectiveness of booster sessions. It would be possible to follow-up two groups over time; one group receiving a booster session and the other not. It would then be possible to compare the longer-term progress made by each group.

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APPENDIX 1
ORIGINAL RESEARCH PROPOSAL

The memo which is given overleaf is a copy of the original correspondence from the Medical Director of the Trust. His memo draws attention to the issue relating to the effect 'bed-blocking' has on patients. This memo represents the initial idea behind this study.

Memo

Dundee Healthcare NHS Trust

To: Dr Elspeth Stirling

Your Ref:

From: Dr Bill Mutch

Our Ref: WJM/MG/TD16

Date: 14 April 1998

Enquiries to: Dr Mutch

EFFECTS ON PATIENTS OF WAITING FOR REHABILITATION AND CARE SERVICES

Of late, much has been written about the subject of 'bed-blocking', i.e. those unfortunate people, usually elderly, who are waiting inappropriately in acute settings for rehabilitation or placement in care settings such as RHEs or Nursing Homes. What effect does this waiting have on the 'bed-blockers' themselves?

Will this do?



Dr W J Mutch
Medical Director

Medical Director's Department

Trust Offices, Royal Dundee Liff Hospital, Dundee DD2 5NF

Tel: 01382 423000 Fax: 01382 580957

APPENDIX 2
ETHICS COMMITTEE APPROVAL

Tayside Committee on Medical Research Ethics

Miss Clare Neilson
Trainee Clinical Psychologist
Tayside Area Clinical Psychology Dept.
Royal Dundee Liff Hospital
Dundee

East Day Home,
King's Cross Hospital,
Cleington Road,
Dundee,
DD3 8EA
Tel: 01382 660111
Fax: 01382 816178

15 December 1997

Enquiries to: Mr M Finlayson
Extension No: 6926

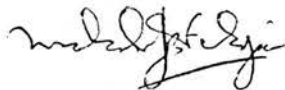
Dear Miss Neilson

Older adults psychological reactions to waiting for specialist hospital services

I refer to your letter of 8 December 1997 with revised Patient Information Sheet and am pleased to advise of formal approval to this study.

This approval is granted for a three year period on the understanding that the Committee be advised if, for any reason, the study does not proceed.

Yours sincerely



Malcolm J B Finlayson
Secretary

Members: Dr P M Windsor (Chairman); Mr J Bowman; Dr W F M Dorward; Professor G Fenton; Mrs S Findlay; Miss E S Macallan; Mr A MacConnachie; Dr M Roworth; Professor I D Willock. Medical Adviser: Dr D Walsh; Scientific Adviser: Dr T Smith.
Secretary: Mr M J B Finlayson.

Mr. M.J.B. Finlayson
Tayside Committee on Medical Research Ethics
East Day Home
King's Cross Hospital
Cleington Road
Dundee

Dept. of Clinical Psychology,
Royal Dundee Liff Hospital,
Dundee

26 February 1998

Ref.No. 227/97

Dear Mr Finlayson

**re. Older adults psychological reactions to waiting for
specialist hospital services [Ref. No. 227/97]**

Ethical approval was granted for the above study in December 1997. However, having embarked upon the study it has become evident that contacting patients as they begin their period of waiting is proving to be difficult. It appears to be the case that those patients referred to as being in group 1(ref. page 4 of main proposal document) and waiting for rehabilitation services, are discharged from hospital as soon as possible, and therefore they do their waiting at home.


I write to enquire about the possibility of altering the time point at which I have to interview the patients. Would you be agreeable to me altering the time at which I contact them with a view to interviewing them, and rather than seeing them while in the acute hospital and waiting for rehabilitation, it would appear that it is more appropriate if they could be seen as they commence the rehabilitation process.

Other than altering the time window in which patients are seen, the study remains unchanged.

I understand that it is likely that you personally will be in a position to respond to this request, should you anticipate any complications or delay I would really grateful if you would let me know.

Thank-you in anticipation,

Yours sincerely,



Clare Q. Neilson
Trainee Clinical Psychologist



APPENDIX 3
INFORMATION SHEET & CONSENT FORM

Older Adults Psychological Reactions to Waiting for Services

We invite you to take part in a research project which we believe to be of potential importance. To help you understand what the research is about, we are providing you with the following information which we want to be sure you understand before you decide whether to participate. Be sure to ask any questions you have about the information which follows, and we will do our best to explain and to provide any further information you require. If you should become tired and wish to have a rest and return to the interview later, or if you wish to terminate the interview this will happen without such action affecting your medical care in any way.

- 1) The reason you have been approached to take part in this project is because we believe you have been awaiting a specialist service, rehabilitation, or to be discharged from hospital.
- 2) The aim of this project is to find out the effect waiting has on older adults - how it makes you feel, and how you deal with those feelings. Emotions play an important part in illness, and if staff know more about these emotions then they may be able to help patients deal with these feelings and emotions.
- 3) If you agree to take part, the psychologist will arrange to meet with you to talk about how you are feeling
- 4) On no occasion will it be necessary for you to come to see me, I will arrange to visit you.
- 5) You are free to refuse to take part or to withdraw from the study at any time, without having to give a reason, without such action affecting your future medical care.
- 6) If you have any questions at any point you will be able to ask the researcher (myself) or the staff in charge of your care.
- 7) Anything you say will be treated in confidence. When the findings are drawn together we will ensure your identity remains unknown. The project may be monitored by Tayside Medical Research Ethics Committee who assess that conditions of ethics and confidentiality are adhered to as we proceed with our work.

Further information is available from;

**Clare Neilson or Dr. Elspeth Stirling at Tayside Area Clinical Psychology Dept.
tel; 01382 580441 ext. 4762.**

Consent Form

This form should be completed by the participant him/herself.

Have you read the Patient Information sheet? YES / NO

Have you had an opportunity to ask questions and discuss the study? YES / NO

Have you received satisfactory answers to your questions? YES / NO

Have you received enough information about the study? YES / NO

Do you know that participation in this study is entirely voluntary? YES / NO

Do you understand that you are free to withdraw from the study;

a) at any time

b) without having to give a reason for withdrawing

c) without your future medical care being affected

YES / NO

Do you agree to take part in this study? YES / NO

Signature_____

Date_____

APPENDIX 4
ASSESSMENT MEASURES

Structured Interview

OPENING INTRODUCTORY STATEMENT AND CONSENT

I am planning to interview several people in the Day Hospital and the nurses have told me that you have agreed to be interviewed. I am interested to learn about how you cope with your current situation.

The interview involves me asking a number of questions about how you deal with your particular situation. There are no right or wrong answers, I am only interested in what you think about your situation and what you do to cope with it.

The information you give me will be used solely for research purposes. All information will be treated in the strictest confidence, and no names or identifying features will appear in the final research study.

Should you become tired at any point or wish to discontinue the interview at please let me know, and we can stop at any point.

I understand from the nurses that you have had an opportunity to read the Patient Information Sheet. Is this correct? Are there any questions you would like to ask me about the study? Then if you are agreeable to participate in the study I have to ask you to sign a consent form which just shows that you are happy to take part in the study, and for the information to be used for research purposes.

Structured Interview

Unique Identifier Number.....

Part 1

Demographic Information

age.....

sex M / F

marital status S / M / D / W

Occupation prior to retirement.....

With whom do you live? alone / with spouse / with family / with other

What contact do you have with your family?

none

1 - 4 hrs per week

4 - 8 hrs per week

➤ 8 hrs per week

Would you tell me about how your family have been able to support you when you were in hospital? Would you say it was

a lot

some support

a little support

no support

of support

Part 2

1. How long was your most recent stay in hospital?

How long have you been waiting to attend rehab?

2. How do you think things are progressing?

3. What are your thoughts about the future?

4. How optimistic / hopeful do you feel about the future?

very

moderately

minimally

not at all

hopeful/optimistic

hopeful/optimistic

hopeful/optimistic

hopeful/optimistic

5. While you were in hospital, was there anything that you did which helped you to cope?

If so, what?

6. Have you had any previous experiences in your life that may have prepared you for this experience?

If so, what?

What did you do to help you cope with that?

7. What do you feel are the 3 most important things that are currently helping you?

i)

a lot / some / a little

ii)

a lot / some / a little

iii)

a lot / some / a little

Part 3

Assessment of Level of Perceived Frustration

1. While you were in hospital did you feel frustrated by anything? Yes / No

If so, what?

How did this feeling/emotion affect you?

upset irritated annoyed angry furious depressed

2. Since you have been in hospital do you feel frustrated by anything? Yes / No

If so, what?

3. How did this feeling/emotion affect you?

upset irritated annoyed angry furious depressed

4. Are you aware of any physical symptoms or reactions associated with this feeling?

headaches sore limbs shaky limbs breathlessness nausea
rise in temperature / fall in temperature stomach problems other

5. How frustrated, irritated, upset do you feel about the time you have spent waiting hospital?

a great deal a moderate amount a little not at all

6. To what extent do you feel you can influence your current situation?

a great deal a moderate amount a little not at all

7. To what extent have you felt waiting has had an effect on your mood?

a great deal a moderate amount a little not at all

1) Is/has Mr / Mrs _____ making the progress expected of her?
YES /NO

2) Would you rate his/her progress on a scale of 0-4

0	no progress	1	minimal progress	2	good progress
4	progress excellent				

3) Is/was the patient in any distress?
Please describe;

b) How is/was this distress manifested?

withdrawal / somaticised / seeks medication / seeks reassurance / seeks
attention / poor appetite / other please state

4) What is/was done to alleviate his/her distress, (if anything)?

b) How effective do you believe this to be/to have been?

very	moderately	a little	nor at all
effective	effective	effective	effective

5) Has Mr / Mrs _____ been prone to infection since admission?
YES / NO

6) Since admission has he/she suffered any of the following?

infection viruses pneumonia cold strep throat flu
other infections e.g UTI

7) Does he/she talk much about family or friends?

YES / NO

Hospital Anxiety and Depression Scale (HADS)



Name: _____ Date: _____

Clinicians are aware that emotions play an important part in most illnesses. If your clinician knows about these feelings he or she will be able to help you more.

This questionnaire is designed to help your clinician to know how you feel. Read each item below and **underline the reply** which comes closest to how you have been feeling in the past week. Ignore the numbers printed at the edge of the questionnaire.

Don't take too long over your replies, your immediate reaction to each item will probably be more accurate than a long, thought-out response.

FOLD HERE

FOLD HERE

		A	D
0 1 2 3	I feel tense or 'wound up'		
	Most of the time		3
	A lot of the time		2
	From time to time, occasionally		1
	Not at all		0
0 1 2 3	I still enjoy the things I used to enjoy		
	Definitely as much		0
	Not quite so much		1
	Only a little		2
	Hardly at all		3
0 1 2 3	I get a sort of frightened feeling as if something awful is about to happen		
	Very definitely and quite badly		3
	Yes, but not too badly		2
	A little, but it doesn't worry me		1
	Not at all		0
0 1 2 3	I can laugh and see the funny side of things		
	As much as I always could		3
	Not quite so much now		2
	Definitely not so much now		1
	Not at all		0
0 1 2 3	Worrying thoughts go through my mind		
	A great deal of the time		0
	A lot of the time		1
	Not too often		2
	Very little		3
0 1 2 3	I feel cheerful		
	Never		3
	Not often		2
	Sometimes		1
	Most of the time		0
0 1 2 3	I can sit at ease and feel relaxed		
	Definitely		0
	Usually		1
	Not often		2
	Not at all		3
	I feel as if I am slowed down		
	Nearly all the time		3
	Very often		2
	Sometimes		1
	Not at all		0
	I get a sort of frightened feeling like 'butterflies' in the stomach		
	Not at all		0
	Occasionally		1
	Quite often		2
	Very often		3
	I have lost interest in my appearance		
	Definitely		3
	I don't take as much care as I should		2
	I may not take quite as much care		1
	I take just as much care as ever		0
	I feel restless as if I have to be on the move		
	Very much indeed		3
	Quite a lot		2
	Not very much		1
	Not at all		0
	I look forward with enjoyment to things		
	As much as I ever did		0
	Rather less than I used to		1
	Definitely less than I used to		2
	Hardly at all		3
	I get sudden feelings of panic		
	Very often indeed		3
	Quite often		2
	Not very often		1
	Not at all		0
	I can enjoy a good book or radio or television programme		
	Often		0
	Sometimes		1
	Not often		2
	Very seldom		3

Now check that you have answered all the questions

A D

TOTAL

--	--

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Code 4460 01 4

Printed in Great Britain

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RECOVERY LOCUS OF CONTROL SCALE



Name:

Date: Record Number:

These are statements other people have made about their recovery. Please will you indicate the extent to which you agree or disagree with them in the right-hand columns.

1. How I manage in the future depends on me, not on what other people can do for me.
2. It's often best just to wait and see what happens.
3. It's what I do to help myself that's really going to make all the difference.
4. My own efforts are not very important, my recovery really depends on others.
5. It's up to me to make sure that I make the best recovery possible under the circumstances.
6. My own contribution to my recovery doesn't amount to much.
7. Getting better now is a matter of my own determination rather than anything else.
8. I have little or no control over my progress from now on.
9. It doesn't matter how much help you get, in the end it's your own efforts that count.

Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

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WE ARE INTERESTED TO KNOW HOW YOU ARE DEALING WITH YOUR CURRENT SITUATION, AND HOW YOU DEAL WITH THE STRESS ASSOCIATED WITH YOUR HEALTH DIFFICULTIES. PLEASE GO THROUGH THE LIST OF STATEMENTS AND WITH YOUR CURRENT SITUATION IN MIND AND ANSWER EVERY ITEM. REMEMBER THERE ARE NO RIGHT OR WRONG ANSWERS, WE ARE JUST INTERESTED IN HOW YOU COPE WITH YOUR SITUATION.

1 = I don't do this at all

3 = I do this a medium amount

2 = I do this a little bit

4 = I do this a lot

- | | |
|--|---------|
| 1. I try to grow as a person as a result of the experience | 1 2 3 4 |
| 2. I turn to personal or other substitute activities to take my mind of things | 1 2 3 4 |
| 3. I get upset and let my emotions out | 1 2 3 4 |
| 4. I try to get advice from someone about what to do | 1 2 3 4 |
| 5. I concentrate my efforts on doing something about it | 1 2 3 4 |
| 6. I say to myself 'this isn't real' | 1 2 3 4 |
| 7. I put my trust in God | 1 2 3 4 |
| 8. I laugh about the situation | 1 2 3 4 |
| 9. I admit to myself that I can't deal with it, and quit trying | 1 2 3 4 |
| 10. I restrain myself from doing anything too quickly | 1 2 3 4 |
| 11. I discuss my feelings with someone | 1 2 3 4 |
| 12. I use alcohol or drugs to make me feel better | 1 2 3 4 |
| 13. I get used to the idea that it happened | 1 2 3 4 |
| 14. I talk to someone to find out more about the situation | 1 2 3 4 |
| 15. I keep myself from getting distracted by other thoughts or activities | 1 2 3 4 |
| 16. I daydream about things other than this | 1 2 3 4 |
| 17. I get upset, and am really aware of this | 1 2 3 4 |
| 18. I seek God's help | 1 2 3 4 |
| 19. I make a plan of action | 1 2 3 4 |
| 20. I make jokes about it | 1 2 3 4 |

{Check to see that you have completed exactly 20 items : then turn this page over and continue with the items on the other side.}

Continue to answer each item with these response choices:

1 = I don't do this at all

3 = I do this a medium amount

2 = I do this a little bit

4 = I do this a lot

- | | |
|---|---------|
| 21. I accept this has happened and that it can't be changed | 1 2 3 4 |
| 22. I hold off doing anything about it until the situation permits | 1 2 3 4 |
| 23. I try to get emotional support from friends or relatives | 1 2 3 4 |
| 24. I just give up trying to reach my goal try to progress | 1 2 3 4 |
| 25. I take additional action to get rid of the problem ^{quickly} | 1 2 3 4 |
| 26. I try to ^{would like} lose myself a while by drinking alcohol or taking drugs | 1 2 3 4 |
| 27. I refuse to believe that this is happening | 1 2 3 4 |
| 28. I let my feelings out | 1 2 3 4 |
| 29. I try to see it in a different light, to make it seem more positive | 1 2 3 4 |
| 30. I talk to someone who could do something concrete about the problem | 1 2 3 4 |
| 31. I sleep more than usual | 1 2 3 4 |
| 32. I try to come up with a strategy about what to do | 1 2 3 4 |
| 33. I focus on dealing with this problem, and if necessary let other things slide a little | 1 2 3 4 |
| 34. I get sympathy and understanding from someone | 1 2 3 4 |
| 35. I drink alcohol or take drugs, in order to think about it less | 1 2 3 4 |
| 36. I kid around about it | 1 2 3 4 |
| 37. I give up the attempt to get what I want | 1 2 3 4 |
| 38. I look for something good in what is happening | 1 2 3 4 |
| 39. I think about how I might best handle the problem | 1 2 3 4 |
| 40. I pretend that it doesn't really happen | 1 2 3 4 |
| 41. I make sure not to make matters worse by acting too soon | 1 2 3 4 |
| 42. I try hard to prevent other things from interfering with my efforts at dealing with this | 1 2 3 4 |
| 43. I go to the movies or watch TV, to think less about it | 1 2 3 4 |
| 44. I accept the reality of the fact that it happened | 1 2 3 4 |
| 45. I ask people who have had similar experiences what they did | 1 2 3 4 |
| 46. I feel a lot of emotional distress and find myself expressing those feelings a lot | 1 2 3 4 |
| 47. I take direct action to get around the problem | 1 2 3 4 |
| 48. I try to find comfort in my religion | 1 2 3 4 |
| 49. I force myself to wait for the right time to do something | 1 2 3 4 |
| 50. I make fun of the situation | 1 2 3 4 |

1. reduce the amount of effort I'm putting into solving the problems 1 2 3 4
52. I talk to someone about how I feel 1 2 3 4
53. I use alcohol or drugs to help me get through it 1 2 3 4
54. I learn to live with it 1 2 3 4
55. I put aside other activities in order to concentrate on this my recovery. 1 2 3 4
56. I think hard about what steps to take 1 2 3 4
57. I act as though it hasn't even happened 1 2 3 4
58. I do what has to be done, one step at a time 1 2 3 4
59. I learn something from the experience 1 2 3 4
60. I pray more than usual 1 2 3 4

NAME: _____ DATE: _____

THE MINI-MENTAL STATE EXAMINATION

ORIENTATION

One point for correct answers to each of the following questions:

What is the time? _____ date? _____ day? _____ month? _____ year? _____ 5 points ()

What is the name of this ward? _____ the hospital? _____ the town? _____
What district? _____ the country? _____ 5 points ()

REGISTRATION

Show 3 objects. Score up to 3 points if at the first attempt, the patient repeats, in order, the 3 objects you have randomly selected. Score 2 or one if this is the number of objects he repeats correctly. Endeavour by further attempts and prompting until all 3 are repeated, so as to test recall later.

3 points ()

CALCULATION

Ask the patient to subtract 7 from 100 and then 7 from the result - repeat this 5 times, scoring one for each time a correct calculation is performed.

5 points ()

RECALL

Ask for the 3 objects repeated in the registration test, scoring one for each correctly recalled.

3 points ()

LANGUAGE

Score one point for 2 objects (a pencil and a watch) correctly named.

2 points ()

Score one point if the following sentence is correctly repeated:
"I am, and so are you, and so are the others, and so are the butts"

1 point ()

Score 3 if a 3-stage command is correctly executed, score one for each stage; for example "with the index finger of your right hand touch the tip of your nose and then your left ear". or "take this piece of paper in your right hand, fold it in half, and put it on the floor".

3 points ()

Give a blank piece of paper, write: "close your eyes" and ask the patient to obey what is written. Score one point if he closes his eyes.

1 point ()

Ask the patient to write a sentence. Score one if the sentence is sensible and has a verb and a subject.

1 point ()

Draw a pair of intersecting pentagons, each side one inch long. Score one point if this is correctly copied.

1 point ()

TOTAL SCORE (=30) ()